North/West Battery Park City Resiliency Project

Community Workshop and Webinar

Moderated by Nora Madonick

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Reported by: Paul Grasso

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A P P E A R A N C E S

List of Attendees:

Gwen Dawson, Vice President Real Property

Nora Madonick, Lead Strategist

Jeremy Siegel, Design team

Greta Ruedisueli, Design team

Peter Glus, Design team

Guest Attendees, Residents of Battery Park City

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Mr. Peter Glus 6, 81

P R O C E E D I N G S

MS. DAWSON: Thank you again for coming out this afternoon for our public community meeting. It is our 30 percent design meeting and so I'm not going to waste any time. I'm going to get it -- get the team started on giving you some of the updated information that has incorporated feedback that we received from you all and others a few months ago and give you a chance to digest it and talk about it a little bit.

So without further ado I'm going to hand it over to Nora Madonick who will give you a little bit of the run of show here tonight.

MS. MADONICK: Thank you, Gwen, and hi, everybody. You're going to hear a presentation for the 30 percent design tonight. And you're going to hear from the project team, and they'll be pointing out where public engagement and public input has informed this level of design.

To make it easier to attend tonight, the presentation is being live-streamed. So we have some folks who are online right now who are participating as well.

Additionally, this presentation will happen twice. We'll have the presentation now. We'll

have a presentation at 6:30 and there will be break between six and 6:30. The presentations are identical. So you don't need to go twice. It's being presented twice just to make it easier for people who have different schedules.

After the presentation, which is about 45 minutes long, we're going to open the floor for a community discussion about the project and today's update. You'll raise your hand and I'll have somebody bring a microphone over to you. So that we can get the most people participating, we're asking that you please hold your comments to two minutes or less so that we can get to everyone who's not only here, but also online.

To those folks who are participating online, you have a Q and A and if you would enter your questions and comments in the Q and A, we will be feeding those all in here, and I'll be reading those in your behalf. I'll go back and forth between in-person and online to make sure that we get to as many comments as possible.

And if we don't get to your comments in this afternoon's time we'll collect them from you in writing and we'll get them answered in an FAQ online.

So without further ado.

MR. GLUS: Great. Thank you, Nora.

My name is Peter Glus. I'm representing the design team and I'm going to go through this presentation with you this afternoon.

The design team is comprised of the Battery Park folks and their engineers, AECOM, One Architecture, and their consultants, AKRF. And from a design standpoint, the contractor is Turner E. Cruz, and the design team is Arcadis, with BIG, SCAPE, and WXY.

So what we're going to do today, as Nora had said, is we're going to go through the presentation and we're going to have a discussion. We're going to have a break and then we're going to redo it again for folks who might want to come later.

So where are we in this design? We're at what we call the 30 percent point, which is the first time where we were able to take the feedback that we received from the community on the choices that we're trying to make and manifest that into a design product that we can work with and cost and phaseout.

And so tonight is really that representation of that first milestone. And then as we move forward in the project, we're going to hit

different milestones and we're going to be reengaging with you folks to get more comment as we move through the milestones of the project.

Just for a bit of context, this project is part of a portfolio of projects that the city is doing, starting on the east side with ESCR. The BMCR Project, the FiDi Project with the financial district, the Battery Coastal Resiliency Project.

And then the Authority has two projects; the South Project, as well as this project, the North/West Project, and an ongoing continued study by the Corps of Engineers with the HATS study for what would happen between Stuyvesant High School and Canal Street.

And this is an image that really shows why we're here and what we're trying to protect against, which is flooding level and the inundation that would occur if a hundred-year storm; which is our design at the design event; would hit the park -- the Battery Park property and the environs.

And you can see that the inundation or the flooding goes past the Authority's property, crosses over 9A and into Tribeca quite a bit for a few blocks. And again, this is what we're trying to protect against.

So we've broken the project into seven REACHes because each REACH has slightly different technical character. I know from the public's perspective and from the agency's perspective it's one big project. We're breaking it down for REACH because it allows us to give a little more technical detail on each one of these areas and to show how we've made the design choices to reflect the input we've received.

So we're going to go in order starting with REACH 1. And I talked about community engagement before. We spent late last year through a number of different sessions talking about the different alignments that could occur in each one of these REACHes. And then we spent really early spring talking about how we've received that feedback and tried to inform our design choices by that feedback -- method we presented specific design approaches to address the feedback.

A couple things to note. There's a couple areas of the project that are still under development technically and we just wanted to highlight that some of the areas in REACH 1 are under development technically and some of the areas in REACH 5. And I can touch on that as well when we get to those REACHes.

So let's start with REACH 1. The highlighted area is the project area for REACH 1. You can see it comes down North Moore Street and ties into West Street 9A. We've gone to North Moore because North Moore and Greenwich is a high point, and the Authority is crossing over 9A to that high point to close off that compartment from inundation if a flood would occur.

No, it's a clicker. Right. Right. I'm not actually -- I'm not showing anything but the -- it's just a clicker that advances the slides. Yeah. No. No, no, no; I wasn't trying to. Yeah. So thanks for clarifying. Oh. There we go. Great. Thank you.

For REACH 1 we had a lot of feedback from the community on the three different options that we've evaluated as a team. And what we're focused on right now is option two, which is aligning with the building. And I'll show you what that looks like. We heard a lot about these different options and some of the feedback was, you know, general preference for option three, which is, sort of, option two plus expanding the sidewalk into the street.

You know, concerns about bike path, concerns about loss of trees; right? And a lot of

additional considerations, particularly coordination with some of the property owners along Moore Street, and some of the utility issues that are in this REACH as well.

So this is where we are today. You can see that the flood wall aligns with the building and goes down North Moore Street and touches the corner of BMCC. The good thing about this alignment from us from a technical perspective, is that this part of the street is higher in elevation. So the intervention, the wall we're building, doesn't have to be so high and so noticeable.

And this is something that we're still investigating as we discuss this project with New York City DOT, whether we can extend the sidewalk into the street, because you all know North Moore is a particularly wide street in the city grid.

So this is a couple shots here that show the existing condition and the rendering that represents the proposed condition. And moving forward, again, we have continued coordination with ConEd, particularly DOT, to talk about whether the street can be reduced. And then continue coordination with the property owners and then continue to focus on the streetscape and how we can enhance the streetscape

environment with more trees protecting the greenery and the mature trees that are there.

Yes. I can -- right. Yes. No. That's right. Yes. Actually that's a good thing because you couldn't see it, meaning we disguised it well.

Okay. Now I'm moving along to 9A, which is what I mentioned before we have to cross. And you can see here it's, sort of, a complicated crossing. We're coming around BMCC. We're crossing 9A right there, just north of Harrison. And then we're going alongside the Hudson River Park Greenway and then turning the corner into this high school; right?

And one of the things the design team is really focusing on quite a bit is what the project looks like. And we have a couple of concepts that we're going to show you. Because we have to build something to hold back the flood, but we don't want the thing to be experienced like a wall.

So we have a couple of things that the design team again is pursuing and considering. One can -- one approach to it is to have a half height wall with some type of barrier system that flips up into place prior to a storm. Now we don't mean to

convey the specifics of that. We haven't designed this yet. But I think we're trying to convey the general idea here, which is that there will be something hanging that will then be moved into place to prevent floods from going onto 9A.

Another approach that we're looking at is having that upper part of that wall somehow integrating glass, so there's more transparency so that the effect for bicyclists and for the pedestrians is to not be next to a large wall. So again, the design team is continuing to explore a number of alternatives here to be sensitive to that particular corner.

And again, we heard a lot about this particular corner, questions about the sidewalk alignment, questions about maintaining the views that are currently there. And then doing what we can to minimize the intervention and possibly making part of the wall some type of deployable or transparent surface.

Now I'm going to turn into Stuyvesant High School, which is REACH 2, and the highlighted area shows that. We looked at a couple of different alternatives for the platform and I think one of the technical things I wanted to mention is that the

Esplanade north of this high school is actually an elevated platform. So for us to build the flood protection structure on that platform would require us to reconstruct the entire platform. Because the current platform can't hold what we need to build on it to hold back the flood.

Right there. Yeah. So we looked at a couple of different shapes of what this Esplanade could look like and based upon the feedback we receive, we're focusing on what we call The Wave. Again, a lot of feedback from community folks about this particular REACH. You know, being considerate of the residential uses.

And again, positive feedback on this approach, because what we're trying to do here is take that current Esplanade and widen it so that we can have more pedestrian flow through it. We're also trying to soften the corner as you turn from the north-south greenway into the Esplanade.

And this is, sort of, a blow up shot of where we are today. You can see we've tried to soften the corner here so that the corner is less severe. And we've also tried to meander this so that we really maximize the opportunity to put plantings and trees and green space in this Esplanade area.

This is a shot that shows the rendering of what it could look like -- design is final. We haven't designed this fully yet, so there's some assumptions made here. But this gives you a sense of the curvature and what this could look like in --

And here's some before and after images. Again, it is the current shot. And this is the enhanced corner. This is the current Plaza. And this is the enhanced.

And again moving forward with REACH 2, there's a lot of coordination that we have to have, particularly with the state of regulatory agencies and in -- and in concern the impact that extending the platform has on shading and of course most importantly, the interrelationship between this project and Hudson River Park. Because by extending this platform, we're moving into Hudson River Park.

And so this has a lot of discussions with Hudson River Park about how we're going to do that, what process we have to follow. And we're trying to figure out what design choices we can make to be sensitive to that interaction with HRPK at the state regulatory agencies.

Now let's move to REACH 3, Rockefeller Park. So Rockefeller Park, as you all know, is

highlighted here. It's a wonderful, beloved open space that I know many of you enjoy. And, you know, when we came into this Rockefeller Park area, we all focused on what we think is the most efficient option, which is basically to work with River Terrace and the elevation that River Terrace currently has. And then work with the retaining wall along River Terrace and see if we can integrate the flood wall into that retaining wall so that what we're building is less changed than what you currently have. Less change. I'm sorry.

Again, we heard a lot of feedback from this; concerns about the lawn closure, concerns about building something in the middle of the lawn or through the lawn on the outer edge of Rockefeller Park, which would impact the views. So we want to pull the alignment into the -- to the top of the park, so to speak. Again, just to appreciate the park's character and to keep it open during construction for as much as possible.

And this is where we are today. The upper part here, along that wall on River Terrace, actually is high enough so that we don't even have to reconstruct it for the design flood event. But moving down south, we'll have to reconstruct portions of the

wall to make that wall more flood-proof so that it can withstand the design event.

And here's some shots of that area. Yes. That was today. And this is the proposed -- and I'm just going to call out. You can't see the barrier in this picture because in fact it's integrated with the River Terrace retaining wall. So, you know, we made that design choice very specifically so that the wall is integrated with the current landscape, and it represents an efficient project from an engineering perspective.

Actually right here. And -- yeah. Yeah. It's the height of the existing retaining wall on River Terrace. Correct. More or less; yes. Well, -- right. The -- some of the wall will have to be reconstructed because it's not designed to hold back a flood. But for the most part that alignment doesn't change. The height of the wall in some cases is just going to match what's there right now.

MS. MADONICK: Hi. Could we just try to get through the slides, because we have the Q&A coming and I want to make sure we leave enough time for everybody to ask; okay? Are you having trouble hearing? Is that what people are pointing on? No?

GUEST SPEAKER: -- the height of the

wall.

MS. MADONICK: Why don't you save that as your number one question, and we'll be sure we get to you; okay?

MR. GLUS: All right. Great. Thank you.

In Rockefeller Park and REACH 3; now we move to the area of the playground. And we looked at a number of different approaches to creating the flood protection system adjacent to the playground. And what we've done is we've really focused on option two. I'm sorry. I got confused there. And this is shown in the next couple of slides.

But what we heard, we heard a lot about this -- is, you know, we want to build the wall in the land side of the playground to minimize the impact to the playground. And we want to maintain the tree scape that is on the side of the street there, adjacent to the playground. Because there's a lot of mature trees along that sidewalk area. And so the design team has spent a lot of time thinking about how we can maintain the trees in this particular area.

So we heard about the trees, we heard a lot about concerns of the playground enclosure, of course. And you can see how we're responding here.

The wall is going to be on the rear of the playground. And by doing so we avoid the impacts of these mature trees. And the project will be constructed -- mobilized within the playground and then trying to keep the playground open while mobilizing that. So there's some phasing that's going to go on there.

Here's some shots. And then here's the wall that is along River Terrace that's between the River Terrace and the playground. You can see currently it's about two and a -- 2 3/4 feet. And the proposed wall will be about 4 3/4 feet. So that wall is going to be elevated to meet the design flood elevation. But again, we're building along the alignment in that wall.

And again, as we continue to move forward, you know, continue to minimize closure times to the playground area. And then we're going to study the material finishes, the look and feel of the wall and what we can do to maintain and maximize and introduce more plantings and trees to this area.

Now we're going to Belvedere Plaza, which is REACH 4. And as highlighted here in this slide, and this is the Lily Pond. It is directly adjacent to the Hunger Memorial and the ferry terminal

is also in this area.

So a lot -- about the Lily Pond. We recognize that the Lily Pond is a very beloved element within the Authority's property. And we tried very hard to be sensitive to the Lily Pond as well achieve the flood protection performance requirements that the project is looking to -- looking to have in this design.

And we're focusing ultimately here on this concept here, which is the flood wall on the roller. I'll show that in more detail. But again, we heard a lot about this. We heard a lot about the impacts to the Lily Pond, the sight lines, the experience of people who are around the Lily Pond.

And of course for the people at the Irish Hunger Memorial. And we've talked a lot about how this project would impact their memorial and the experience of people as they go to the memorial and interact with the memorial.

So where we are right now is, we have a wall that goes between the Hunger Memorial and the Lily Pond, and maintains the Lily Pond, effectively as is. It will be closed during construction at moments but we're not modifying significantly the Lily Pond. We're building the wall between the Lily Pond and the

Hunger Memorial. Next couple of slides we'll show that in more detail.

This is the existing Lily Pond and the existing views. As the proposed. Existing Hunger Memorial. Proposed. And this is a shot that shows, sort of, an aerial view and you can see how the wall goes between the Hunger Memorial and the Lily Pond. We're continuing to study circulation, people's experience, you know, as they interact with the Lily Pond moving forward. And then again, you know, the look and feel, all which the design team is still in the process of finalizing the finishes of the wall itself.

We've heard a lot about the ferry terminal. We heard a lot of feedback about the ferry terminal, about whether to move it south, whether to move it north. We heard a lot of feedback on the existence of the ferry terminal from the residences of the Authority. And so what the design team has tried to do is work with the ferry terminal in place without moving it. Because we recognize that movement of that would exasperate some of the issues that some of the community is experiencing.

So you can see this is the area where we're building this project alignment, between 30

Vesey Street and the ferry terminal. Like I said before, the ferry terminal is not going to change location.

We're going to construct the project by phasing its construction in front of the ferry terminal. We might need to add a ramp or two, but we're working with the Port Authority right now to understand what they need specifically so that we can phase our construction and they can maintain operations.

Here are some shots; there's the ferry terminal. And this is the new alignment that sits between 300 Vesey and the ferry terminal. Again, ongoing work; there is a fair amount of ongoing agency coordination here to coordinate with the ferry terminal, of course, and to get more detailed discussions with them about how we can phase this construction.

Again, you know, continuing to study what's going on with the transition in Belvedere Plaza. And then as I said before, the finishes in the materiality of the wall is something that we're going to be looking at over the next couple of months.

Now let's go to North Cove. North Cove is a big area and there's a lot of engineering issues

with this particular part of the project. So I'm going to step through them piece-by-piece and then show you a lot of imagery that conveys where we are for 30 percent design. Belvidere Plaza. You could see we all know what were the, you know, the beautiful grove of trees that's here. And so what we're doing, we're planning to put the flood wall behind the grove of trees.

We've heard a lot about preserving the views. The commercial establishments along this area, and so as a design team we tried very hard to be sensitive to that. And, you know, we also want to put back seating and ways of enjoying this space that are there now and maybe we can do even more than that.

One of the things that we're also trying to do is make these spaces more accessible for people who are not able to just walk up and down because the stair -- the area is very characterized by stairs and, sort of, sharp shapes that are rectangular. They really are the design aesthetic of this area. But it's not very ADA acceptable or universal access.

So here is the existing Belvedere Plaza. And here is what we're proposing. And you can see we've put the flood wall, sort of, upland of the

grove of trees. And we've tried to disguise it as best as we can so that it doesn't impact people's experience as they walk in that open space. Here's another shot.

And you can see we're trying to maximize seating, and again, you know, create these moments where people can enjoy what will be a beautiful environment that's being built.

Moving forward, again; ongoing study of deployable, you know, when we show this alignment, the alignment is generally contiguous. You know, it -- it's continuous but there's points within the wall that are gaps to allow people to walk through.

And as a team we're studying the different ways we can close these gaps. In some cases there are flip-up doors. In some cases there are sliding doors. And the design team has a couple of different options of how to do that. And we're going to continue to work on that as you progress the design.

Now let's talk about Waterfront Plaza. I'm going to point out that this area is actually a platform itself. If you stand here -- in the Winter Garden, you're actually above water, because the Winter Garden is actually a suspended floor above

water. So if you were a fish in the Hudson you could swim directly under the Winter Garden.

And so that's a technical challenge that we're trying to address as part of the design. And we've heard a lot about, you know, maintaining views in the Winter Garden; maintaining the experience that people currently have as they walk, and they interact with that, you know, beautiful indoor plaza area.

We've also heard a lot about, you know, sun and shade and issues, of what that experience is like on hot summer days and what that experience is like during other parts of the season, and what we can do to enhance people's experience during the temperature cycles that occur in this plaza.

So this is the current plaza. And this is what we're proposing. You can see we're integrating the wall into the seating area here on the upland side of the wall, and creating better ways to access the lower plaza that are ADA-compliant and promote universal accessibility. Here's another shot.

Remember I talked about, sort of, the rectangular and sterile-like nature of the current environment. We're looking to use this project as a real opportunity to change how people get around the

plaza area by allowing greater access.

And here's a shot of us utilizing heavy ramped areas so that people have an easier way to get in and around the plaza area. And here's the existing Waterfront Plaza. And here's the proposed Waterfront Plaza. And again, we've tried to integrate the flood wall in a way that doesn't impact people's views as they sit in the Winter Garden or in the upper part of the area right outside the building.

All right. This is a view from Le District terrace. And this the proposed view from Le District terrace. And you can see we're trying to minimize the height of the wall here and use creatively openings so that we can promote flow of pedestrians in and out of the wall and at the same time make that structure robust when there's a storm coming up the northeast.

So moving forward on Waterfront Plaza, there's a lot to discuss here about circulation, programming, experience of people. This is a wonderful area. It's a focal point for us in this project and so there's a lot of continued discussion we're going to have about how people are experiencing that and how our design assists access and assists with, maybe shading, and exists -- assists with some

of the heat that's here in the summer.

And again, there's a lot of agency coordination as well with the Army Corps, with the Port Authority, because there's a lot of buried -- with the Army Corps and the Port Authority in specific that we're looking to design around. So there's a lot of ongoing agency coordination.

The last area here is Pumphouse Park, which is also a wonderful space. And what the -- we've heard a lot about Pumphouse Park. Okay. We've heard a lot about Pumphouse Park and how this project is going to minimally try to impact what's there right now, because it's really a beloved space and it's recently reconstructed.

And so we also heard a lot about the pinch point between the park and the Esplanade. And so the design team is really working through how we can align the flood wall between Pumphouse Park and the North Cove edge in a way that doesn't exacerbate the pinch point. So there's been a lot of discussions that we're having.

And that's a great way for us to engage just after the meeting to talk more about this specifically because there's some technical issues here in terms of how we want to mitigate the pinch

point that is currently there right now. Here's a shot of the existing. And here's a shot of the proposed.

And moving forward, again; continuing to discuss circulation and the experience of people as they pass between Pumphouse Park and the Esplanade edge.

Now we go to Kowsky Plaza. And really, this section here is characterized by the privacy walls that are towards the north part of the Plaza. And what we've tried to do is to be -- is align ourselves with those existing privacy walls so that the project that we're -- is not changing the experience that people currently have with that area of the project.

So you can see here we've mimicked the current alignment of the privacy walls, and the wall is going to follow that up into the southwest lawn. And here are some shots. You can see in the background there, the existing privacy wall and fence. And you can see the proposed flood wall, which mimics that privacy wall.

Again, moving forward, North Cove. You know, again, talking about, you know, the significant commercial establishments there, talking about the

experience in the Winter Garden in the Plaza, and just having a real strong point of view on people's experiences as they move around this area. They come in and out of the buildings and what the project that we're going to build does to enhance their experience and create greater access.

Now I'm going to move to the South Esplanade, which REACH 6. And the South Esplanade is this platform that is directly adjacent to The Regatta, Hudson Towers. And it's a platform, so we can't build on it because it's suspended from the water.

So what we're going to do is we're going to try to get the alignment to follow the existing privacy walls that are currently outside the residences and are built on solid ground, not on the platform.

So again, we workshopped a lot of different options with folks in late fall and early spring, and we've concluded that the most efficient alignment is to go close to the residences and follow the alignment of the existing privacy walls. Again, we heard a lot about this, and we heard a lot about the alignment in front of the residences.

We also heard a lot about the alignment

as it interacts with the street ends and the public art that's currently there right now. So I can show you how we've proposed to deal with that. So here's the current project, as I said. Here's some existing shots. Here's the proposed. Here's the existing shot right there under Albany Street. And here's the proposed.

Again, trying to integrate with that existing privacy wall to minimize the construction of something new in this positive area. The shot of the Esplanade. The proposed shot. You can see the wall -- the reconstructed wall in the background. Another shot of the Esplanade. Another shot of us with that integrated wall there.

One of the things that we've also done is we've chosen to make the pedestrian path meandering in this area because we've heard a lot from the community about sometimes situations between cyclists and pedestrians. That seems to be a really big issue here. So by meandering it, we're promoting more pedestrian flow and we're trying to move the cyclists away from the meandering path.

Here's a shot of the existing end of Thames Street. And this is how we proposed to flood protect the end of Thames Street with a gate structure

that slides in place, but then is open during non-storm conditions to allow egress. Here's the shot of the Rector Street -- street end, the proposed flood wall showing that open area.

And then moving forward again on this REACH, you know, just continuing to discuss how we're going to handle the public art, continuing to discuss how the privacy walls are going to be reconstructed, talking to the tenants. There's a lot of conversations that we've had and will continue to have with them about this project and how it relates to their privacy wall that they currently have.

And we'll wrap up with REACH 7, South Cove. So South Cove is a beloved landscape designed by Mary Miss with that wonderful grove of trees. And you know, we've thought about South Cove, about, you know, some of the pinch points and the circulation issues, you know, recognizing that we want to minimize field of view and obstructions from line of sight to the water.

And we want some universal accessibility to be brought into this area. We want to be sensitive to the current users of the buildings on the corner and just being very sensitive to the grove of trees that exist right now.

So the proposed project goes along the buildings and then effectively goes behind the grove of trees, helping us to avoid any impacts to that grove and the mature trees that are currently there. That would be very difficult to replace. Here's where we are today. This is a representation of the project. I can go to the before and after shots here. So this is current, shot looking out towards the water. This is the proposed project. This is the current that's existing. This is the proposed.

And I'll also add that some of the decisions we're making about the walls that I showed earlier in REACH 1, we're going to bring some of those learnings to this area so that we can begin to explore how we can protect these buildings. But maybe have a half height wall with the upper half be something that's deployable or something that's transparent.

Five minutes. Okay. Moving forward at South Cove, continued collaboration with Mary Miss, the artist, and then, you know, continuing to study the trees. What can we do to plant additional trees? What can we do to maintain the trees? There's been a tremendous amount of focus by the project team on how we can preserve these mature trees and do what we can to avoid impacting any of those trees.

Sitewide we've had some concerns that people have brought up and, you know, preserving the mature trees, number one; right? Limiting closures, disruptions, which is something that we've heard very clear and we're going to come to you in later phases with a staging plan to talk about how we're going to build this project in a way that minimizes disruptions and closures.

We want to maintain the use that the residents enjoy and then focus on the look and the feel of the walls themselves. And again, universal accessibility.

And then sitewide again, we're continuing to coordinate with the original designers' artworks as well as the landscapes and then, you know, again, just, you know, continuing to look at the ecology here and, you know, what we can do to change or evolve the ecology so that it's more robust against a saltwater environment that it's currently experiencing, as well as to look at what the project can do to mitigate heat in the hot summers.

So just to recap, as we wrap up the presentation and go to questions, again, we're here. We spent a lot of time over the past 12 months hearing from folks, hearing from agencies, hearing from

residents. We've tried to take that feedback and have that feedback help inform our design choices. And really what this is right now is it's a way of coming back to you and saying, here's how we heard you.

These are the design choices that we've made that reflect your feedback, and let's talk about it. Let's talk -- if we've incorporated your feedback properly and then what we need to tweak or change moving forward, as well as continue our dialogue with the agencies that regulate the project.

And then what you should expect to see in the next couple of months, more feedback opportunities are going to be announced as you progress from 30 percent and begin our journey to 60 percent, as well as some significant permits that we're going to be applying for that are going to have their own public processes and public comment periods.

And then you'll probably notice this already, but you're going to begin to see field investigations as we do borings, we take samples, we do surveys, we understand what's there right now so that our design can mesh with what's currently there right now in the field.

And with that, I think we're going to open it for questions.

MS. MADONICK: Well done, Peter.

All right. So I just want to go over the rules of engagement for tonight. If you are participating in person, I have a team member. This is Vince, and he will come around the room with a microphone so you can share your question or comment. Again, please keep your comments and questions brief to make sure we can get to as many as possible.

You may also ask if you prefer, a team member could bring you a comment card if you don't prefer to speak in public. I'm happy to read them all for you.

If you are participating virtually, and I'm speaking to our virtual friends today, please use the Q and A feature on the Zoom to submit your questions and comments. I'm collecting them here. They're being transcribed and I'll be going back and forth between the room and online.

I would also say to everyone who is here during today's discussion, you may hear things from your community, from community members, from your neighbors, from your -- from others who are participating tonight that you agree with, and you may hear some things that you don't agree with. Please be respectful of all the opinions that are shared today.

If we don't get to all of the questions and comments tonight, please submit your comment and we will respond in a frequently asked questions document that will be posted to the BPCA website shortly after today's meeting.

So let's get started. Vince right here, in the blue, please. And could you do -- could you tell us your name? And if you're representing an organization could you do that too, please?

GUEST ATTENDEE: Hi. I'm Pat Smith. I am the president of the Battery Park City Homeowners Coalition. More than 5,000 homeowners who, with their ground rents and their taxes, are going to pay for this. So we want to watch this very carefully.

One thing we -- saw, this meandering in the South Esplanade. The inner walkway on the South Esplanade is fine; it works fine. It's more than 15 feet from where you're going to put the privacy wall. You don't have to touch it. You don't have to do anything with it. A couple of times we asked about this no one came up with this bicycle problem. People came up with just, well, it would be a nice thing to do to create a meandering walk through the forest.

We need flood protection. We need flood protection, with good taste, which is why we're

doing it through you guys, not through the Corps of Engineers. But we don't need nice touches that are going to add hundreds of thousands of dollars to this project.

So that inner walkway runs nice and straight. People can get back and forth and that with baby carriages. People can back and forth with walkers.

To meander it is not going to curb bicycle use. It's going to just make it more dangerous because of blind turns, and it's just a pointless waste of money that adds no flood protection. Thank you.

MS. MADONICK: Thank you.

GUEST ATTENDEE: And take that as an example and go through the whole project and look where you can knock off 100,000 here, 100,000 there. Because we're going to pay for it. Thank you.

MS. MADONICK: Thank you. Let's see what a response might be.

Jeremy, would you like to take that?

MR. SIEGEL: Thank you very much for that. The concern is well noted. I would say two things. One is that in that area and in a lot of areas of the project, basically, anything that you see

within what we call the Limit of work, which is not just the flood protection but everything outside of it that we're also replacing.

Usually the reason that we're replacing those things is that the construction equipment that's necessary to construct the flood wall will be using those areas and their use of those areas requires that we rebuild them.

So the whole area of REACH -- what we call REACH 6, the South Esplanade that you're referring to, from the flood wall to the, kind of, inner edge of the historic promenade, we do need to reconstruct in some way. So from a cost perspective, I would say there's not a lot of extra that's going on there. It's really the area that we need to replace.

However, you're noting a concern about the meandering. You're noting a concern about visibility and safety. We heard those comments also in our last meeting. We've noted them and as we move forward, we will be addressing them. But I want to make a distinction.

Well, there's a timeline on this where the outreach that we were doing for REACHes 5 and 6 was coming slightly later in our 30 percent design process. So we have this time now during 60 percent

to continue to respond to those kinds of comments. But I understand your concern. Thank you.

MS. MADONICK: Thank you.

So I'm going to switch to online and then I'll come back to you. So online, will the walls block the views that the restaurant diners and the public seating now enjoy?

Peter?

MR. GLUS: I think that the question is probably focused on the area that we call REACH 5? That's my guess? But I think the response to the question is, we're doing our best to, you know, do two things; right? It's a big balance. We're trying to balance how we can prevent the impacts of an upcoming storm, yet at the same time allow the current uses of the Brookfield Plaza area to exist.

So what we showed in our design is our way of keeping the wall height as minimized as possible to not impact those views. And we're continuing to balance this issue throughout the project because we don't want to have those viewers impacted significantly in these REACHes.

So you can see, for example, we talked about, we'll be short on REACH 1 where we're talking about a partial height wall there to be sensitive to

people's views and experiences as they walk along the greenway. So for all of these REACHes the project looking to balance. Maintaining views, maintaining people's experience versus the goal of the project was to protect. And so that balance has played itself out on these different REACHes.

MS. MADONICK: Thank you. Excuse me? Could we have a hand raised, please? We can't hear you. Oh, you're asking to -- can we go to the slide. Sorry. Thank you. Yeah. You're right. Fair enough.

MR. GLUS: There's a lot of slides, so.

MS. MADONICK: The reason that I hold to the microphone is it's the only way that the people online can hear us.

MR. GLUS: So here's an example of how the flood protection alignment is going to interact with a restaurant. And you can see we're working hard to maintain those views. And we're working hard to maintain the current experience that people have and diners have as they come and sit at a table and have a view of the Hudson River. And so this is a good example of that balance, you know, planning out the design.

MS. MADONICK: Thank you. Vince? Right here, please. Hang on. Hang on. Hang on.

Hang on.

GUEST ATTENDEE: What is -- moving wall?

MR. GLUS: Sure. We generally call them deployables. But basically, when you have a wall, there are certain parts where you want to create a gap so that people can walk through it. And what we're saying now is there's different ways to close that gap; right? That gap will exist when we go out there on a sunny day, everyone's going to see the gap.

However, when the storm is coming up, and it's in the coast of North Carolina, or when it's in the Mid-Atlantic, you know, we're going to have a plan that says, as that storm approaches and comes up the East Coast, we're going to progressively close those gaps.

And there's different ways to close those gaps. And sometimes we slide a door in front of it. And sometimes the door comes from ground. And sometimes we insert something from the bottom. And that has to do -- all those different choices have different maintenance impacts, and they have slightly different protection performance.

And so the design team is trying to figure out right now which of the specific deployables

we're going to put in all of these gaps, so that the product performs as we need it to during the storm, but is also maintainable and looks good.

MS. MADONICK: Thank you.

This is a large overview and large areas of REACH 1, 2, and the areas around North Cove are still not able to be determined. Will those reaches be presented again with updated information before BPCA takes further steps forward?

MR. GLUS: I think the answer is yes. There are certain areas that we're noting here that are under development. For example, the questioner noted on REACH 1. We're debating how we're going to handle the half height wall. So we're coming up with a proposal that we think meets the feedback that we're receiving.

But at the same time, we have to go with the proposal to the DOT, to Hudson River Park, to all the different agencies that are regulating that and get them to agree technically that what we have proposed to do that reflects the feedback that we've received is in fact acceptable from the agencies' perspective.

So there's, sort of, a two-step process here by getting feedback from the public and then

going to the agencies and making sure the agencies are okay with how we've interpreted the feedback.

MS. MADONICK: Thank you. Right there, Vince.

GUEST ATTENDEE: Thank you. I have a comment and a quick question, but I'll fit it in two minutes. The pictures like this with us on the inside of the wall, this is just a 3-foot wall. But some of them, in some places it's 9 feet, in some places it's 10 feet. The people seem unnaturally tall. And I don't really mean, like, relative to myself. But in general I don't feel like it's a fair perspective of how we'll feel on this side of the wall looking out.

And my second is a question following up on cost. Rockefeller Park, the playground was completed only last year. It was out of commission for two years. It was a lot of money. This has been in the works while that was happening. Was there any coordination between you guys? And how much exactly have we spent at this 30 percent mark; any rough estimate?

MR. GLUS: I'll address your questions one by one. So all the renderings here, I don't think we deliberately tried to choose tall people. I think -- hopefully what the presentation conveys is

where the wall is high, like in REACH 1, the design team is doing our best to make that experience better. So on REACH 1 we don't have a 9-foot-high wall. We have half height wall with a deployable element or a transparent.

That's the way we're approaching the project because we don't want people to experience a tall 9-foot wall. I don't think in any other area of the project we have a tall 9-foot wall. And in REACH 7 where we need a tall wall around that corner --

MS. MADONICK: Thank you.

MR. GLUS: Sorry about that. This is better now. Yes. Did you hear my response to the first question? Should I repeat it? Yeah. So basically for Rockefeller Park, for that exact reason we've chosen to have the alignment where it is right now to minimize the impacts on Rockefeller Park. So there's no wall being built within Rockefeller Park, and there's no wall being built on the edge of Rockefeller Park to minimize any impacts that construction would have on the open space in the park.

That was your second; to your third question regarding cost, I can't speak to that but that's something probably you should have an aside

with some of the folks from the Authority, because I'm not really authorized to speak to the cost. But no capital cost has been expended yet. We're still designing the project.

MS. MADONICK: Would you pick up the Lily Pond slide?

Are there images from the street -- this is referencing the Lily Pond. Are there images from the street side wall and side wall of the streets along River Terrace? Will the artwork at the intersection need to be removed at Warren and River Terrace? And if so, why?

MR. GLUS: We're working right now with the Authority to understand how the project is going to impact the artwork. Let me talk specifically about the upper room. The upper room, we're in consultation with the original artist. And we're looking at what we can do with that alignment so that it minimizes impacts to art installations like that.

Yet at the same time, there may be in that upper room situation, an opportunity for us to change the artwork, evolve the artwork. And again, all I can say is we're in discussions with the artists right now to understand how our project is going to align with the vision of that installation.

UNKNOWN SPEAKER: Questions about the art at Warren --

MR. GLUS: Oh, Warren River Terrace. Okay.

MS. RUEDISUELI: I think the question was about art at Warren and River terrace. Is that correct, Nora? The artwork where -- at Warren and River Terrace, I believe is the Dimitri Pavilion. And that is outside the limit of work currently because the seepage barrier analysis determined that the wall height would be not needed with the grade elevation there.

The second question I think was also about renderings along River Terrace. There's a video in the lobby that show -- has a lot of content and views that are not represented in this presentation, and we'd be happy to talk with anyone through that as well.

Oh, hi. I'm Greta Ruedisueli. I'm with SCAPE Landscape Architecture.

MS. MADONICK: Okay. Vince? Come back? I'm very patient.

GUEST ATTENDEE: Hi. Good afternoon. Three questions; I think under two minutes.

First, it doesn't seem to be the issue

with REACH 3, which is Rockefeller Park, which is nice. But they were -- in the scoping document it talks about wave attenuation features, which I assume means some type of hardscape that's going to reduce the volume and velocity of water.

If it reduces the volume and velocity of water, can't that also reduce the height of the walls because you have less water coming through with less force? Has that been looked at? Has that been incorporated into the height of the walls? Because that also may reduce and minimize the experience of people and make it unnecessary in terms of a 3-foot wall, 2-foot wall.

Second, in the South Project, it was discussed that there was a 15-foot tree-free or vegetation-free requirement between flood walls and the vegetation. But I don't see that in a lot of the illustrations. Some I do, but some I see trees right up on the flood walls. I want to know, because of the size or the thickness of the flood walls, can you vary from that particular guideline?

And the last part is that many of these diagrams are from the water view. Can we get more illustrations in the future what it would look like from people from the street view or the seating view?

You do have that with that one illustration that you showed of the Plaza. But if we could do that with more of the -- it would better inform us. Thank you.

MR. GLUS: I'll go in ascending order. Those are great comments. For comment three; yeah, we can -- that's great feedback. You know, we're representing these, trying to show certain things that we think folks in the community would want to see, but certainly having more views from the water side or from the backside, we can certainly reflect that in future meetings. Great question.

Your second comment about the 15-foot buffer; yes, the same requirement we have in our project, there is a certain setback that's required because whatever we build has to be maintained. And there's concern that any large trees would undermine the wall or undermine the seepage barrier that is going down in some cases 30, 40, 50 feet below grade.

So it's the same limit that we're both incorporating in both of our projects. And so I can talk to you specifically more about how we're dealing with that for all these different REACHes. But yes, it's the same rules.

Yes, there are some variances that we can apply for with FEMA, but FEMA is generally very

rigid on this point because they don't want the wall to be undermined by a large tree root system, which could compromise the wall.

And then I think your first question was -- yes, about attenuation. Yes, absolutely. In a lot of these different REACHes, we're going to be putting attenuation features. For example, on REACH 2, the Plaza in front of Stuyvesant, we're going to shape the edge of the platform so that the edge itself functions like an attenuation feature.

So we're basically taking every possible opportunity to attenuate the wave before the wave hits the wall or the element so that we can minimize the height that we have to build it to. In some cases that's, sort of, intuitive.

Like in Rockefeller Park, there's a lot of park to run through before that wave hits the wall. In some cases it's much closer. And so as a design team, we're looking at all the technologies that are available right now to attenuate so that we can minimize the wall height.

MS. MADONICK: Could you go to the bike path slide? So this question is about the bike path.

What feedback have transportation alternatives, HRP, and the state DOT; Hudson River

Park, is HRP; and the state DOT given on the walling of the bike path? Were alternatives looked at within 9A?

MR. GLUS: I thought you meant the wrong bike path. That -- to REACH 6. Let me go back to REACH 1 here. Yes. We're in ongoing conversations with state DOT, with Hudson River Park, and had a number of public engagement sessions on REACH 1.

What we're -- again, what we're trying to balance is building something that protects flood versus building something that makes people feel like they're traveling alongside a wall.

So these two images here; this one, and this one; are our design team's attempt to begin to think about the choices we can make which we're then going to go to the agencies and the -- involve stakeholders and socialize these choices and try to get consensus on what this should look like.

I will say that this particular area is one of the most vulnerable places within the Authority's property. The height here is almost the lowest of the entire project. And one of the things that we're concerned about as designers is when that storm comes, it often lifts up debris and that debris then knocks into the wall.

There's a Marina right outside this wall, and so it's a real possibility that the storm would lift up some of the smaller floating vessels and propel them into the wall. And so we're having to make this wall robust enough so that if floating debris, if floating cars, if floating boats, the floating barges, if other objects along the Hudson were to be propelled by wind into the wall, the wall would hold up.

And what we don't want to do is have a wall that's not robust here because again, it's a particularly vulnerable part of the project and if this wall were to fail, 9A would be inundated. The areas that I showed before in Tribeca would be inundated.

MS. MADONICK: Thank you. So there was a follow-up question. I just want to make you all aware, because I'm going through these as they come in. Follow-up question on this wall, which I believe you answered. It was asking why -- what exactly will this wall do? Which I believe you answered. I -- one of the questions that they're asking as a follow up is how long will it take to build? Are you able to address that now?

MR. GLUS: Yeah, we don't -- until we

finalize the design of the wall, we don't really have a precise estimate of how long it would take to construct this. But as the design progresses, our project team and the Authority will be providing more information on construction staging and phasing, which will answer that question.

MS. MADONICK: Okay. Yeah, that'd be great.

GUEST ATTENDEE: Thanks for the presentation. If you could please go back to the Rockefeller Park slide, that would be helpful. Curious if you could speak a little bit more please too; I see it says minor impacts to lawn. What specifically that means, and if any of the trees will be impacted, that would be helpful.

MR. GLUS: Right. That's a great question. Currently right now in heavy rains, there's a bit of a swale in Rockefeller Park where the water could collect. And so one of the things that the project is thinking about is, you know, as we go and embark on this whole thing, is there a way we can do a, sort of, like, a minor intervention and include some drainage pipes in the middle lawn?

So basically what this really represents here is, maybe just enhancing some of the

drainage, we don't have those swales, because right now during heavy rain events, the water kind of ponds there and, you know, that's a nuisance. So, you know, it's a minor -- I -- I don't want to call it surgical, but it's a very discrete part of the project. Yeah. No, absolutely.

MS. MADONICK: So this question too is about Rockefeller Park, so we'll stay there. Who gave BPCA the ability to propose plans for property that is not in BPCA's jurisdiction?

The Hudson River Park Advisory Council was established by the city and state to advise the Hudson River Park Trust in planning and policy issues. We only received a presentation about BPCA's proposal two weeks ago and voiced objections to your plan to platform over the park's estuarine sanctuary and extend your project into the park itself.

Why weren't we informed and involved earlier? What alternatives are being considered?

MS. DAWSON: I'll take that. For those of you who may remember, before we started the North/West Battery Park City Resiliency Project, we had a prior project that was called the North Battery Park City Resiliency Project that started in 2019. We started having conversations with Hudson River Park in

2019 as that project was beginning and we've had conversations with them ever since.

We understand that the design that we are showing at 30 percent involves an encroachment into the water area that is owned by Hudson River Park. We have had conversations with Hudson River Park about this. We are continuing our conversations.

At the meeting two weeks ago was referenced the Hudson River Park, I think, Advisory Council where we shared this. We do not presume to be able to do this, absent an agreement or some type of mutually agreeable arrangement with Hudson River Park, so that we are able to extend that Esplanade that -- into that area by a few feet.

And we are very diligently exploring ways that we could achieve that that may involve new legislation to adjust that boundary. Or it could involve some type of mutually acceptable agreement between Battery Park City Authority and Hudson River Park.

But we are not -- we're not proceeding unilaterally. We are not presuming to be able to do that absent an arrangement that would be acceptable to Hudson River Park.

MS. MADONICK: Thank you, Gwen. Vince?

Right here, please.

GUEST ATTENDEE: Thanks. Victor Moremont [ph], resident and homeowner here. First of all, thanks for the presentation, all the work and the thoughtfulness; really appreciate it. I think two points for me.

First, for the wall and River terrace, I just noticed that all the other walls I appreciate the integration, but that one just seemed like it was just, you know, like a 9-foot wall, or at least it appeared that way without any sort of integration and, sort of, blocked the water views. So I just want to highlight that.

Second, I think would be helpful and I know cost has come up quite a bit, you know, among some of the questions here. And I think what would be helpful is with respect to let's say, ongoing maintenance costs, and I'm talking about insurance costs for the buildings that, you know, are on the other side of the wall, etcetera.

Like, has there been any studies or engagement with insurance companies, given that we are in zone one year on that? And also in terms of building materials, maintenance costs for the new green areas etcetera, is that also being considered

from a cost standpoint? Because I think would be great.

And I don't know if this is achievable or not, if there -- a case could be made for lower maintenance costs going forward, at least to some degree. You know, as a result of this capital expenditure.

MR. GLUS: Right. So you had two questions. So the first question was about that wall. And yes. So we're going to, based upon how we further study the options that we're going to look at in REACH 1, we're going to move whatever we choose and investigate whether it can go back into REACH 7 because we recognize we're not going to have a continuous model of the wall there as well.

You know, part of it is, at this point in the design process, we probably have to begin to go and talk to glass fabricators and metal fabricators and the people who, sort of, know the details of how this stuff is assembled, how -- what can be done to make it watertight, how is it maintainable, you know?

You know, I'll give you an example. I can design the top half as aluminum so that it's easy for maintenance people to lift up. The problem is that aluminum is not going to be as strong as a steel

plank, for example. And so if it's aluminum, I might need to put a strut on top of that; right? If it's a steel plank, I might not need that strut, but then I might have a hard time lifting that in place.

So there's a lot of maintenance choices and operations choices that we're exploring right now with the Authority as we talk to manufacturers and fabricators. And I think once we finalize that process, we'll have some clarity on how we're going to approach REACH 7. And then from REACH 7, we're going to take those learnings and apply it to that wall. Your first question.

Your second question is, the objective of the project is to build a flood protection system that is robust and certifiable so that the city seeks a LOMR which is a letter of map revision. When the letter of map revision is issued, the insurance rates change because the map revision is in place.

So one of the points of this project is that there will be reduced insurance costs for everybody who's protected by this project because the product itself is deemed certifiable and robust for the design storm. And that should have a significant financial effect for people in this area over time.

MS. MADONICK: So we're going to stay

with the question of flood walls. Where are there other examples of flood walls that have functioned as designed when doubled in height in times of flooding, especially in a robust marine environment such as we have on the west side? Who will be responsible and what propulsion system will be used to raise the second half of the wall?

Using glass for the upper portion of the wall seems foolish as it will only be raised in times of flooding and will eventually haze and glaze over, so it would not be transparent.

MR. GLUS: It's a great question. So, yes. I wish this questioner would come and during our design meetings, because these are the things we talk about.

If, you know, we're proposing that, we could consider using glass panels. The problem is glass panels have a certain way of aging and being impacted by scratches and pebbles that flip up from the roadway and over time they lose transparency, or they get, you know, fracture cracks; right?

However, they do at least provide a great sense of transparency between the wall -- between the wall and the path and 9A.

So, you know, there are pros and cons

of that approach. There's a lot of situations around the world where people have chosen to use deployables. There are hundreds of installations like this in Europe, where Arcadis, a Dutch company, they're all over our country, in Netherlands.

And it gets back down to the questioner pointed out; what type of mechanized system is being used to lift it in place? How easy is that? How easy is it to maintain these systems? These are all designed choices that we have to balance.

You know, we're not there yet. We're only at 30 percent. But this is the kind of question that we're going to explore as we go to 60 percent. And again, get more detailed feedback from fabricators and really look at those trade-offs and come to the Authority with the recommendation.

MS. MADONICK: So keep walls in mind, Peter. So have the wall gates been tested in other locations? What is the failure rate of not being able to close the gates during a flood? Does gate closing need to be tested periodically to ensure growth or debris doesn't prevent closure in a flood? Has wall closure ever failed during a storm? Can a certain gate be chosen not to be closed to flood a certain area in order to save other areas?

MR. GLUS: Those are a lot of detailed design questions. I'll do my best.

Floodgate systems have been used throughout the U.S. They've been used throughout the Southwest. They've been used in New York. You can see some of the gates that have been designed in the Lower Manhattan portfolio. You can walk on the East Side, and you can see the gates that are being proposed for ESCR.

What we're trying to do in this project is to create simple gates that have very low levels of mechanical complexity, so that basically what you see is what you get. Those types of gates don't have intense maintenance requirements and are easy to deploy.

What we're trying to avoid is overly complex mechanical systems or hydraulically activated systems that might need more intensive maintenance, or basically might represent the problem that you're not aware of until you need to deploy the wall.

So we're looking for simplicity. We're looking for robustness. We're looking for transparency from a technical perspective. And yes, the U.S. and the world has a lot of experience deploying these sorts of walls.

Generally speaking, when you look at the history of flood protection failure, most often it's not because people haven't intervened to put a certain thing in place. It's because the storm that has occurred has compromised some other part or the drainage system in part.

Like, if you think about Katrina. Katrina's failure was really all about the drainage system and the pumping systems that were necessary. So there's a story with each flood of why it failed, if it failed. But those really don't generally focus around deploying the flood wall prior to a storm. In most cases, the protocols are in place, FEMA's approved them, they're all written down. All the agencies that are involved have rehearsed these.

As a matter of fact, there's a requirement by FEMA that the rehearsal of this flood protection installation has to be done at least annually. So annually you'll see these barriers deployed and the engineers will be overseeing the people who are doing that to certify that it's being done properly, and people are properly trained.

MS. MADONICK: Just a final follow up on that. How will the sliding gate mechanisms be protected from salt water damage during a flood and

will they need to be flushed with salt free water after a flood?

MR. GLUS: The materiality choices that we have on these gates is not going to be affected by salt water. The inspection process will indicate if there's any corrosion, but the engineers are going to be putting corrosion allowances into these gates. So we don't think that corrosion of these gates is something that is a serious consideration during design.

I would say that there's a number of installations of gates like this in the tri-state area that we've taken the same approach with. And again, we're drawing upon our experience in Texas and in Florida and Louisiana, where that's the outcome of our research there. But it's a great question.

And as the design progresses further, more details on these gates will be revealed in the design -- the detailed design drawings.

MS. MADONICK: Right here.

GUEST ATTENDEE: Thank you. I appreciate all the comment. I'm a tree lover and just wondering how many mature trees will you need to remove and who's going to be advocating for the ones that are, sort of, in question as you move into the

60 percent phase?

MR. GLUS: I get -- here's how I'll respond. There's been a major theme on this project to protect the trees. We recognize that trees are integral to the identity of the Authority's property.

The design choices that I presented here that the design team has come up with have taken great extent to try to avoid the mature trees and minimize the impacts on trees.

As a matter of fact, our approach for the playground area was specifically chosen to avoid the impacts of the trees along River Terrace. So we're constantly thinking about tree protection and tree preservation to protect the beloved trees here, because you recognize again, their importance to the identity of this area.

I don't have the exact counts. But I will say as the design continues to be detailed out and the construction, staging, and phasing continues to detail out, we'll have more specific information on what trees are specifically going to be impacted and how we're going to mitigate those that could be impacted.

MS. MADONICK: So this question from online is, how can you integrate back and arm rests on

the multiple walls that you show with people sitting on them? Also, they look like they're inviting skateboarders.

MR. GLUS: Question two; I'm flashing to a picture that has integrated seating. But, yes. Again, the theme of this project is to try to make a wall not a wall; right? So we're trying to help people to experience what we call the element of flood protection and not feel like it's a wall.

So in this case we've chosen to integrate into seating. We're making all types of choices along this alignment to try to change people's experience adjacent to the element so that it's not perceived as a wall.

I will say that the team is having a lot of conversation about skateboarders, parkour people; all the people who would use what's being built as some platform for doing something. And we're going to take all the lessons that we've learned too and apply those lessons to this wall to prevent people from skateboarding and using it for parkour or all kinds of other uses that it's not intended for.

But it's a great feedback and we're being very mindful of right now how are we shape the wall, what the top is like, whether the top is flat or

whether the top is sloped, the materials that we're choosing for the facade of the wall.

All those things wrap around this question of how is it going to stand over time? How is it going to be used by people? How are people going to want to try to damage it? Or will people use it for a different purpose? We're trying to be very mindful of those questions as we designed this.

GUEST ATTENDEE: I'm a local resident. Realizing that this is still in early planning days, do you have any sense of which phases will be constructed after which one, and just rough timing? It looked like the anticipated start date is fall of 2025. Would you be moving from 1 to 9 or from south coming north? Thank you.

MR. GLUS: It's a great question and my response to that is the design team and the Authority are looking at different alternatives right now. We don't have a firm answer for that. But as soon as we have that clear answer, we're going to come and that will be presented in community forums regarding phasing and construction scheduling. But there's a lot of different choices that we can make and we're evaluating those choices right now.

MS. MADONICK: Okay. What changes will

be done to the marina to help modernize the marina, mitigate the rough waters, and reduce the influx of garbage? What changes are planned for the number of floating docks, boat slips, school and marina infrastructure?

MR. SIEGEL: Sure. I'll go ahead to one of those slides. I think we have an overview. Yeah. So you can kind of see what's going on here in the northeast corner of the marina and a similar thing is going on in the southeast corner of the marina. But basically there's no change to the operations to the boat docking, to the sailboat school, etcetera. We're keeping all of that as-is. The flood protection is all upland of that.

The one thing that we are doing is, you can see here there's, sort of, a curved section of the platform. We do the same thing on the other side. We're doing that over the lower platform footprint. So, you know, if there is a change, there will be a little bit less space in those two corners. But we don't expect that to significantly impact any of the circulation or boat operations.

In terms of garbage, etcetera, that's a bit harder to answer. I think it's a little bit out of our scope. But, yeah. Main point is that most of

the work is actually happening away from the marina.

MS. MADONICK: Oh, I'm sorry. There's someone who hasn't asked a question yet in the back.

GUEST ATTENDEE: Thanks. Does the number of deployables or the footage of deployables affect the failure rate of the wall?

MR. GLUS: That's a great question and the answer is, obviously if the wall had no deployables and was a complete straight shot, the wall would be easier to operate because it wouldn't require someone to intervene. However, like I said before, we're trying to balance the wall, the robustness of the wall, and the experience of the public around the wall.

And so in certain areas we have to leave these gaps to promote egress. And so we've worked hard to minimize the amount of gaps. And we've worked hard to put closures on those gaps that are simple to operate and maintainable and robust, and are as strong as the wall itself.

So the project strikes that balance between permeability during non-storm conditions and robustness when the design storm would occur. But I can talk -- we can, you know, talk more about that specifically afterwards because there's a lot of

discussion and there's a lot of specifics technically on that issue.

MS. MADONICK: Thank you. I just want the folks who are watching via the Internet to know that I'm skipping two questions because we've asked them already; one about glass barriers and one about the failure rate on gate closure.

How is BPCA going to accommodate and compensate people with respiratory health issues while construction is outside our apartments?

MR. GLUS: I had mentioned earlier, you know, we're at 30 percent right now in the design. As we move into later phases of the design we'll have greater clarity and how we're going to construct this thing, how we're going to phase it, how we're going to schedule it.

Part of the conversation is -- is making sure that the equipment that we use, the phasing that we've chosen, how we're constructing is minimizing noise, dust and any impacts to the people who are experiencing this construction.

So I could assure you by saying that we're going to use best practices to minimize dust and noise. We're going to follow all city laws and city ordinances to minimize dust and noise. And we're

going to do everything that we can so that we don't have those types of impacts experienced by people who surround the construction.

But I think that that conversation is going to happen in subsequent meetings as we have greater finalization on what we're designing, and we begin to talk more about constructing and phasing.

MS. MADONICK: Thank you. Did you want to ask a question?

GUEST ATTENDEE: Thank you. I have two questions. They're both kind of quality-of-life questions. And the first is, I use the bike path all the time and the bike path is extremely dangerous now. There are motor scooters that come on it. There are delivery people with huge bikes. There are E-scooters, E-bikes. No one supervises that bike path. There are no tickets given. Nobody has ever stopped.

With that wall there it looks like the material, as you said, it has to be very durable and strong. That seems to be a danger or a red flag for me that with all the conditions we have now, now we're going to have a wall with it where there's going to be people speeding by and maybe crashing into the wall.

So I would urge you to take

consideration of the fact that the laws are not enforced on the bike path. And there are electric vehicles all over the bike path all the way up. I ride it all the time.

The other thing is. With the graffiti on the wall, I mean, it's -- it looks very beautiful in the renderings, but in reality, is there going to be something that covers it to prevent people tagging it or people even posting, you know, signs advertising?

MR. GLUS: To your first point, yep; point noted. I mean we recognize, I mean, you know, the E-bike that use the bike path are not, you know, part of our control or not.

But again, point noted, and we'll take that feedback back and, you know, keep considering that as we think about what we're designing and how what we design might influence the behavior of people who are on bicyclists, E-bikes, and mopeds.

To your point about graffiti; great point. We're thinking about that too. We're doing research right now on what's the best coatings that we can use, what's the best surfaces that we can use. You know, we want a surface that's robust from graffiti. But we also want a surface that is

cleanable and looks nice and looks presentable.

The Authority's landscape is -- has a high design aesthetic. And what we want to do is match the historic nature of that aesthetic with something that is able to withstand graffiti or tampering or anything else that might be an unintended use. So it's a great point. We're thinking about that as well.

And that falls in the category of skateboarders and parkours. There's all kinds of ways this wall could be misused, and we're trying to think about what could happen and how we can make choices as a designer to avoid that taking place.

MS. MADONICK: Thank you. Okay. We're going to take one more question from the in-person and one more online and then give these folks a little bit of a break before we start again at 6:30.

GUEST ATTENDEE: Thank you for your presentation. And I thought the pictures are very pretty and they look fantastic. But you kind of disappointed me a little bit because you didn't talk about your underlying assumptions. Namely, what you are building against.

I understand that you are looking into as far as the years 2050. And I'd like to know what

you were thinking about in terms of how high sea level rise will be, which impacts, of course, what your construction requirements would be.

I would like to know what you're thinking about in terms of the flooding possibilities from heavier weather, and will that impact your drainage and your sewage systems?

I think what you're doing is basically talking about what people are basically interested in, what they're seeing right now, as opposed to what it is that we are trying to prevent, which is as much flooding as possible and as much damage caused by sea level rise. And I'd really like to know where you're coming from originally about all this.

MR. GLUS: Yeah. It's a great question. So the inundation map that I showed has the hundred-year return frequency and 30 inches of climate change. And the 30 inches of climate change is the 90 percent 2050s.

So let me just break that down. The hundred-year return frequency is the frequency that's set by FEMA for -- this gentleman, I think, was -- someone was talking about the insurance maps? I forgot the -- where the question came from. But, right. So we have to design for the hundred-year

return frequency for the surge because that's what affects the insurance.

So we can't go higher or lower than that because when we do the map revision for their protected area it's based upon the hundred-year return frequency. So that's the surge components. From a climate change component, yes; we're assuming 30 inches for 2050. And we recognize that the city is constantly studying what's the latest science, what's the latest data, and what are the latest projections?

I will say that, you know, NPCC 4 which is, you know, the city-led agency that establishes governance on how the different projects throughout the city assume climate change in alignment with one another. There's some consideration right now of a different value for the 2050 milestone for climate change.

Having said that, my understanding of what's being discussed right now is that the 2080s projection remains unchanged. And I think we're basically waiting for the city to finalize this guidance and we're going to conform to its guidance.

From my perspective, 2050 is basically right around the corner from this project; right? Because this project is going to take a certain time

to build and the reality of it is that's pretty close to where this project begins. Most of the things that we're building here have at least a 50-year life.

So what we want to do as designers is think about what happens in 2060, 2070, 2080, 2090. And we want to bake into this project the right assumptions so that we don't have to revisit the project and modify the wall in any way which would be expensive, intrusive, and have impacts that are like the original construction.

So we're trying to do our best right now to anticipate the life of this project, make the right assumptions and be in alignment with the city's guidance.

Yeah. The question was, is what we're building going to be scalable? Yeah. So the answer is yes. So when we go through the design of these walls we ask ourselves, is there a way we can modify this wall so that it could possibly be elevated a bit in the future?

We're going to think about those design choices and see what they affect in terms of the foundation design and where it makes sense we're going to do that, because we want to have a wall that's adaptable; right?

You know, we talked before about Rockefeller Park and having, you know, small interventions into the current area in Rockefeller Park; gets a little bit wet during heavy rains; right? Maybe in 10 and 20 years more than just some small projects with under drains will be necessary at that point as climate change affects the area and the edge of Rockefeller Park.

So I think the project has a vision of being adaptive to what takes place with our climate. And as designers we want to be adapted to that as well.

MS. DAWSON: If I could add just another point. This project is part of the city's Lower Manhattan Coastal Resiliency Program. And that set of projects which includes the BMCR, our South Battery Park City Project, the Battery Coastal Resiliency Project, the FiDi Seaport Project, all of them have been designed with at least an expectation of 30 inches of sea level rise.

And that's important for all of the reasons that Peter talked about. We want to maintain consistency with those projects. We want to maintain the ability to adapt to future needs, because all of the projections are continuing to go up. They're not

coming, you know, they're not -- there's not a point at which they turn around and come down. They continue to go up.

So we know that at least a couple of those projects now; the Battery Coastal Project, and the FiDi Seaport Project; they're actually looking even further out at 2100. So we want to make sure that we are, as we pointed out, is the criteria for our project is the 2050s 100-year-storm with 30 inches of sea level rise maintains that consistency and that ability to adapt to future conditions.

MS. MADONICK: So the last question of the night for this session; this is coming from online.

What parts of the designs are final and not subject to change? When is the deadline for changes and large-scale changes, like changing the alignment? The public and CBI have asked CB-1; sorry; have asked that the engineers answer any remaining questions at a follow-up meeting to explain versus an online post. Is that possible for July or September?

So the question is, what is final, what remains to be changed -- could remain to be changed, and is it possible to have a meeting in July or September to discuss the remaining questions?

MR. GLUS: So I'll take part of that question. By definition, we're at 30 percent, right; which means we're at 30 percent complete. Nothing is finalized for any of the REACHes, where this is our first design milestone where we try to feedback and reflect the input that we've received from the community and from the stakeholders and from the agencies.

As we move from 30 percent to 60 percent, we -- like we had said, we're going to have additional engagement meetings with folks to continue to, sort of, calibrate or ensure that the feedback that we're receiving is reflected in the choices that we're making.

But you can see based upon the work we did last fall and the work we did in the spring we've narrowed those choices down to a preferred alignment.

And so what we're doing right now is, we're detailing out that preferred alignment so that we can understand more about the design, such as the deployables, and such as the choices we have about a half-height. And that's something that we're progressing to 60 percent to continue to define that.

One of the things that these images don't reveal is how the wall looks. We kind of

represented everything as, sort of, like, concrete; right? But as you progress into the design, you're going to see surface treatments on those walls. But we haven't gotten there yet because we're only at 30 percent.

So, you know, there's lots of opportunity to continue to comment on this project and we're only at 30 percent and nothing's been finalized yet.

MS. DAWSON: And just to add -- can you hear me? Okay. And just to add to that, I mean, there are areas that Peter pointed out this evening that are a little less than 30 percent design. There's the area along North Moore where we're looking at still continuing conversation with New York City DOT about the possibility of extending a streetscape element of that and potentially narrowing that street.

We will come back to you to discuss that as we get more information. I'm not sure if it'll be July, but possibly. Same goes for Pumphouse Park. There are some underground elements. They're related to The Port Authority infrastructure that are affecting the design of that area of the Esplanade and Pumphouse Park. It's not quite resolved yet. So we will come back to you with that once we get more

clarity on that.

So -- and there -- in the event that anything is -- changes in terms of the agency feedback that we get on REACH 1, that will also be brought back. And right now it's not really possible to know whether that will be in two weeks or a month, but we will bring those items back.

In terms of feedback for the next stage of design, the next stage of design does 30 percent to 60 percent, and I would urge everyone to provide any comments that you have at the 30 percent design level in order to be considered for 60 percent by the end of July. And that gives the design team an opportunity to compile those comments, that feedback, and to incorporate that into the next phase of design.

MS. MADONICK: I will address that for you. So anything that you want to comment on tonight, we have a comment box out in the exhibit area and we're collecting them there. The boards and illustrations that you saw out in the exhibit area will be uploaded to BPCA, the website.

So you can take a look at them, and you can develop more comments that you want to share. You can then e-mail them to nwbpcrinfo@bpca.ny.gov and that e-mail is also on the website.

So I want to give these folks a chance to have a little bit of a break before we come back at 6:30. I want to thank you for your participation tonight and for listening to each other. If you have any questions about tonight's presentation, we'll be out in the hall, and you could certainly ask. Enjoy your evening.

MS. DAWSON: For Battery Park City authority and on behalf of the Authority, I want to welcome all of you to the second of our two presentations on the 30 percent design for the North/West Battery Park City Resiliency Project.

I won't take up much time, but I want to reiterate just how important these sessions are. We look forward to a very good presentation where you can get a lot of information about what the design team has been doing over the last few months with the feedback that they received from you and others a few months ago, and then have an opportunity to have a discussion about that afterwards.

So without further ado, I'm going to turn it over to Nora Madonick.

MS. MADONICK: Thank you, Gwen. Thank you everyone for coming out tonight. So tonight you're going to be hearing about the 30 percent design

milestone. You'll be hearing from the project team about how public input has informed some of the ideas that you're seeing.

To make it easier to attend today's presentation is being live streamed. So we have some folks who are participating via the Internet, and the presentation has been presented twice. This is our second round. It will be the exact same presentation that was presented at 4:30.

After the presentation, which should be about 45 minutes, we will open the floor for community discussion about the project and answer some questions.

If you're participating in person, a team member will come around the room with a microphone so that we can hear your question or comment. To make sure we can get to as many as possible, we're asking that you keep your question or comment brief; no more than two minutes, please.

If you prefer not to ask it in person and you'd like to write it out, I'd be happy to take whatever you've written out and I'll read it for you.

If you're participating virtually tonight, we're collecting written comments and questions via the Q and A feature on the Zoom. So

please enter your questions or comments there. They're being transcribed here, and I will be taking alternating questions from the floor here and from online.

If your question -- if we don't get to your question tonight, please submit it anyway. We're going to answer them, and we will put them in an FAQ, a frequently asked questions document, that will go up online. So without further ado; Peter?

MR. GLUS: Great. Good evening, everybody. My name is Peter Glus. I'm representing the design team along with Jeremy and Greta from Big and SCAPE, respectively. I'm with Arcadis; the full team here.

Of course, the owner here is the Authority, the Battery Park City Authority. We have engaged AECOM, One Architecture, and a key representative of their advisors. On our team is Turner E. Cruz is the contractor. And then Arcadis, BIG, SCAPE, and WXY as the design team.

We're going to be going through the presentation. We're going to try to get it done in 45 minutes. Then we're going to look to have a great session of Q and A with you folks, answer any questions you have following the process that Nora had

just laid out.

So where are we? We're right here, which we refer to as the 30 percent milestone. We've spent last fall talking about different choices we can make in terms of alignments. We've spent early spring talking about what those different choices could look like in terms of optionality on alignments.

We've taken all that feedback and we've represented it in a design set of drawings. We call it the 30 percent. That's the first time that the feedback then, sort of, takes life and manifests itself into, like, a product that we can estimate, that we can phase, that we can, sort of, begin to tweak. So we're at that point right now.

Over the course of the summer and into the spring of next year we're going to take that 30 percent set, collect more feedback from it, like through sessions like this, and then advance it to 60 percent and get more detailed. So one of the things you'll notice is that the project looks very gray and "concrete-y" because we haven't figured out what the finishes of the walls are yet. That's something that we're going to do moving forward.

We wanted to first focus on where is the project? How is it going to interact with the

beloved parks, the beloved attributes of the Authority's property around it?

Once we figure that out, then we move into what does it look like? What does the surface look like? How is it shaped? How is it designed to prevent graffiti, you know, skateboarders, that kind of a thing. So we're again in this process and then we go to final design and construction.

For context, this project fits into a portfolio of projects that the city is undertaking, starting with East Side Coastal Resiliency, moving down the east side of Manhattan there with the BMCR project and the FiDi study, the Battery project and then the Authority's projects, which is the South Project as well as this project, which is the North Project.

And then moving onward, there's been activity recently with the Corps of Engineers in the HATS study.

So there's a whole suite of projects that are taking place in Lower Manhattan. And we're working with all of these different projects to align our design assumptions about what we're doing to respond to the storm and what the storm actually is.

Speaking of the storm; so this is a map

that shows if we didn't build anything, what would get flooded? And you can see, one of the things that this shows is that flooding occurs on the Authority's property, goes across 9A, and begins to go into the city street grid. So there's an impact associated with a design event for this project area. And the purpose of this project is to prevent that from happening.

So we've broken up the project with the seven REACHes. It's all one project, but it's been chopped up into these little pieces because each REACH has, sort of, a different character and there are different technical approaches in each of these different regions.

So what we're going to do is talk to you about the project through the lens of those REACHes and then try to bring it all together. And at the lobby outside there, there's some imagery that shows the entire project with all its REACHes, so you can see it in its totality.

And like I said before, we spent last fall talking with the public, with other stakeholders, with the agencies on the alignment choices and then we tried to refine those alignments with how we're going to respond to those choices through feedback sessions

in early spring. And today's presentation is in the 30 percent set, which is our representation of what we've heard and how we propose to make those balances.

I will note that there's a couple of projects that are still under development more significantly than others. The area that is adjacent to what we called REACH 1 along the greenway that abuts Hudson River Park, and the area near Pumphouse Park, and I'll speak to that in the presentation.

So let's dive into the REACHes themselves. So I'll start with REACH 1. So REACH 1 is the illuminated area that includes North Moore and 9A. We're going to North Moore and we're going to Greenwich because that's the high point in this valley that's created.

So by going up to Greenwich we're taking advantage of the topography of the Lower Manhattan area and creating closure for this area south, so that the inundation that would have occurred is not going to occur. So again, we're going up to Greenwich to tie into that high point.

We cited a couple of different ways of going up North Moore Street and we heard a lot of feedback on this. The approach that we're moving with is to align with the building. And I have a bunch of

images that show that.

But I will say that we're continuing to investigate whether we can expand the curb into the street because North Moore is particularly wide. Like, you know, relative to the streets of Manhattan, North Moore is a particularly wide street.

So we heard a lot of feedback on that recap. You know, people like to widen the street, widen the sidewalk. People are talking about a new bike path. You know, alignment to the building is preferred, which is what we'd chosen.

You know, a lot of concern about trees. I'm going to talk about trees a lot during this presentation because the design team is very focused on maintaining mature trees and choosing the path of the alignment to avoid impacts to trees. And you'll see that as a theme that comes through as we talk about these different REACHes.

There's a lot of utilities in this area as well, and we're doing intensive coordination with ConEdison, DEP, etcetera.

But this is what it looks like today, where the alignment is basically hugging the building and going along North Moore. And you can see one of the things that's to our advantage technically is that

the height of the wall becomes like a curve up here because Greenwich is higher than 9A. And so that means that the wall basically tapers up as it goes to Greenwich.

We're continuing to study whether we can push into the street and enlarge the sidewalk scape, but that's something that we're continuing to discuss with New York City DOT. We don't have any formal agreement. We're in the process of just, you know, discussing that with them, what the implications are of that, and, you know, obviously that's something that they regulate.

And these are some before and after pictures of this REACH. And I'll just quickly flash through these with you. This is before. It's the proposed project. You can see again, the wall being integrated with the buildings.

And then moving forward, again, continue coordination with New York City DOT; a major stakeholder for that street. And then a continued coordination with Independence Plaza and Borough of Manhattan Community College, which is a large stakeholder for this area, as well as continuous focus on tree canopy and the experience of people walking up and down that street.

From North Moore, we turn onto 9A, and we have to cross over now into the Authority's property. And there's been a lot of focus in this particular stretch on this particular flood protection element that abuts the greenway north and south along Hudson River Park.

We've heard a lot of feedback from folks that we don't want a tall wall. We don't want a 9-foot wall. We want to do something more creatively. So the design team has been working to basically investigate some feasibility options. And so we wanted to show two to you tonight. We're going to continue to work on this moving forward.

This first concept is what we call a half-height wall, where the wall is about half height of the design storm. And this is a representation of a deployable element that's lifted up and put in place.

One of the complexities of this point, this location, is that it's a very vulnerable location. It's very low. It's right on the coast. It's subject to all the wave loading and there's a marina outside in the water. So of all the places of Authority's property that have a possibility that large floating debris could come in and hit that wall,

is this place.

So we have to think about how can we design something that's strong enough to take a vessel load, but also during sunny days doesn't have the experience of a wall. And so this is one concept we've had.

The other concept is to, you know, see if we can use, architecturally, glass elements on the upper part of the wall; see if the wall can be used for some type of plantings.

These are all things we're exploring right now as we're responding to the public comment that we don't want a full height 9-foot wall. But again, we all recognize that we also have to protect from the design storm.

And in this case, the consequences of failure of this wall are that the water would flow down 9A, inundate those areas in Tribeca west of 9A, and really be very catastrophic. So there's a lot of vulnerability here. So we're balancing these choices.

Again, continuing to talk about what we've heard, again, you know, the view corridors, the experience of people on the sidewalk, the experience of cyclists, the, -- you know, the experience of joggers, and just what that looks like, how it's

integrating with the greenway that's currently in place right now and being used by a lot of people.

And you know, we're continuing to talk to city partners about the utilities as well that affect the design.

So now, 9A then cuts and comes right next to Stuyvesant where we are, and it goes right along the northern part of Stuyvesant. And that Esplanade that's right outside the building is actually a platform that's suspended over water. So a fish can go underneath that platform and basically go to the building side of the high school itself.

So part of our challenge technically is, you know, we can't build a new flood protection system on top of that platform because it wasn't designed for it. So we have to reconstruct the platform.

And so we're thinking now, if we reconstruct the platform, what are the opportunities there to make that platform better? We're trying to make it a little bit wider so we can have emergency egress. We're trying to make it a little bit wider so that we have greater pedestrian flow. And of course we have to make it a little bit wider because we have to put the flood protection system in that horizontal

stretch.

So we had a couple of different options that we had looked at. Most of these follow the same theme, which is widening the platform. And yes, we recognize that by widening his platform, we are encroaching on Hudson River Park.

And we are -- that the Authority is in conversations with Hudson River Park to talk about what impact that specifically has, what that means in terms of approval process.

And that's an ongoing dialogue that the authority is having. There was a meeting apparently two weeks ago with the Hudson River Park Advisory Board and that was discussed, and that's continuing to be discuss.

The other thing that we're -- another important stakeholder in this is the State and the Federal Government, because when you go over federal waters, you have to go through and get permits from New York State DEC, and from the Corps of Engineers. And so for this particular REACH, we have a lot of dialogue with the Corps and DEC as well as HRPK.

I covered a bit of what we heard already, but let's go to the images themselves. We call this, you know, the -- it's a bit of a meander

here. And you can see we've taken a lot of opportunity to -- in place as much green space as we can so that the area is experienced as a greenway. And this is a bird's eye view of the final render.

Again, we're only at 30 percent design, so we made some assumptions of what this is going to look like. So this is a bit of, sort of, artistic concept. But you get a sense of the shape of it, how we try to address the pinch point of the corner; I softened the corner; how we're bringing this out a little bit to create space for plantings, and how we're trying to do our best to minimize the encroachment on the Hudson River Park sanctuary.

Here's some before and after shots with renderings as the existing Esplanade. This is the proposed Esplanade. Existing. Proposed.

And again, moving forward, continued conversations with Hudson River Park, continued conversations with the DEC, continued conversation with the Corps of Engineers, just to make sure that from a regulatory perspective and from approvals perspective, we understand the impacts of crossing into the HRPK estuary.

Now we'll move on to REACH 3, Rockefeller Park. So Rockefeller Park is the

illuminated area there. And we heard a lot of feedback about Rockefeller Park. And, you know, the central theme of the feedback was, we love the park, we don't want it disturbed. It's a beautiful park. It's a wonderful open space.

You know, how can we design something that protects the Authority's residents and property without impacting the park significantly? And so what we've tried to do is be as efficient as possible here and take advantage of what's currently there, which is this retaining wall along River Terrace, which effectively is the height of the necessary flood wall.

In fact, the retaining wall on the north side is so high we don't actually have to build anything here because the existing wall is high enough and strong enough to take the design storm event. So what we're doing here is we're trying to have, we call it, you know, a project, an intervention into the landscape that is minimal, is efficient, is cost effective. It performs as needed for the design storm.

Leaving Rockefeller Park unconstructed, I would say the only thing that we're probably going to do in the park is we do plan to have some minor drainage improvements because right now when it rains

heavy, there's a bit of a "swaling" going on, and a bit of a ponding, and we're looking to maybe install a couple under drains in that particular area so that the ponding goes away. But that's not a big project.

So here are some shots. This is the before. And this is the after. And yes, the point of this is you can't see the wall because the wall is actually the, you know, the retaining wall along the drive.

So, you know, this is -- like I said from an engineer's perspective, an ideal location for a project, because you're basically leveraging what's there to accomplish what we need to do for the future.

And then ongoing work, you know, ongoing -- there's been some discussion about you know, ball courts and seating, and some of the programming.

And then, you know, what we need to do to address the drainage improvements in the middle of the lawn, you know, how we can do that quickly and how we can do that with minimal disturbance of the lawn area so that we achieve what we want, which to not have any ponding when it rains heavy.

Now let's talk about the playground. The playground was -- we got -- we had a lot of

energetic discussion with the community about the playground.

There's a couple of different ways to protect the residences and property of the Authority in and around the playground area. And what we've chose to focus on is option two here, which is the wall along the street. We specifically chose this option because we didn't want to disrupt the trees that were along the street side.

There's a large line of mature trees on the curb and we thought that the construction impact of those would really be irreplaceable. And so we specifically, again, focused on approach two because of that issue to protect those trees.

Yeah, and we got a lot of comments about the choices that we were making in the playground area. But tree removal, concerns about playground closure, and then, you know, the impacts the curbside parking.

And so this is the current alignment that we're pursuing in the design. The wall goes on the east side of the playground. It's constructed from the playground to avoid these trees. And I've got a couple great before and after shots here that show that the height of the intervention, again,

leverages what's existing there today so that the new experience is not one where there is a big, gigantic wall, but we're basically leveraging the alignment of the current walling systems.

Again, here I went a whole lot, you know, this is 2.75 feet above and the proposed project is going to be 4.75. So we keep that alignment.

Obviously, like I said before, this is shown as, sort of, a concrete, sort of, monolithic surface part of our project, and our next phase is to figure out what that surface should look like, whether it should match this surface, whether it should be some other surface. How can we, you know, enhance the experience of people and the aesthetic that the Authority is famous for?

And again, moving forward, you know, just continue to focus on how we can construct this and minimize downtown -- downtime for the playground. And then continue to focus on, you know, the study of the details, right; the materials, the plantings, the surface finishes, all these things that make the experience of children and adults and everybody else around this area so wonderful like it is today.

So now we're going to switch into REACH 4, Belvedere Plaza. And Reach 4 has a couple of

very notable components. It has the Lily Pond. It has the Irish Hunger Memorial. It has the ferry terminal and it's on a suspended Esplanade, which is actually a platform, again, that has water underneath it.

So we looked at a number of different options of how to address the Lilly Pond and to how to create protection adjacent to the Lilly Pond. And we've got a lot of feedback on that, you know, about the "belovedness" of the Lily Pond and how residences would prefer to see that not be changed and not be affected by this project.

So we've come up with an alignment that is built on the upland side of the Lilypond and is woven here between the Hunger Memorial and the Lily Pond. And we've created an open gap in the protection system that has a slidable gate so that people's experiences, there is visual engagement between the Lily Pond and the base of the Irish Hunger Memorial.

Here's a couple of shots of existing; existing, and the proposed project. Existing, and the proposed project. Again, trying to balance the design of the wall so that it doesn't affect people's views of Hudson.

Sure. Yeah, I can. Yeah. We -- just

told that I'm actually running slow, so. But yes, I'll go back and flash these two. These are great slides. Yeah. So you can see the -- yeah, on the upland side of the Lily Pond. Yeah. The height of the wall from the ground level specifically? Yeah, around 4, 4 1/2 feet. Well, but -- yeah, we want to try to keep all the questions to the end.

MS. MADONICK: So if we can hold the questions to the end, that would be useful for making sure we get to as many as possible. And also the people online can't hear what is shouted out. So we need to use the mics; okay?

MR. GLUS: The ferry terminal. We heard a lot about the ferry terminal. We heard a lot; a few think about moving it south, moving it north, and we're having conversations with the Port Authority. And what we're trying to move forward with is to construct what has to be constructed without moving the terminal and phasing the construction around the terminal to avoid moving it. Because we heard a lot of clear feedback that moving that was going to be problematic.

So right now we're working with the Authority to figure out what the operational impacts are going to be by constructing it in a phased way in

front of it. You can see technically it's difficult. Obviously, we have to construct here, and the ferry terminal is going there, and has to be maintained in operation. So again, we have detailed conversations with the Authority to work out those plans.

Some shots of before and after. And again, continued discussions with the Port Authority and a lot of conversations again about materiality and planting. You know, the stuff that forms the experience of people as they walk, and they interact; right?

Now we're going to talk about North Cove. North Cove; there's a lot to talk about here, so I'm going to move through this. We've broken it up into four or five buckets and I'll step through each of these buckets. Belvedere Plaza is a beloved grove of trees, and we've heard a lot of feedback about, you know, we don't want the flood protection to go through those trees.

So we've chosen to put the alignment of the wall upland, so to speak. And I've got some really clear images for -- that show that. But again, we heard a lot very clear about that.

We also heard very clearly that we didn't want to have the flood protection system to be

impacting the views of the commercial establishments and anybody who is a tenant in the building areas around REACH 5.

Current Plaza. And here's -- again, we're trying to integrate the wall into the -- we're trying to make the wall part of the programming; trying to make it so that people are walking by that and not experiencing it as a wall, but a wonderful place to sit. Existing. Proposed.

Moving forward. We're continuing to study the use of deployables and other types of engineering solutions to close the gaps. I can get into it a little bit in more detail after the presentation if you want.

But basically, there's a lot of different ways to close these gaps and all these different approaches have different maintenance implications and operational implications and aesthetic implications. And we're trying to balance all those different implications to find the right choice for -- to match the feedback that we've received.

Now we're going to go to Waterfront Plaza. And I want to highlight that again, Waterfront Plaza is suspended over the water. So if you were a

fish in the Hudson, you could swim underneath the Winter Garden and go to West Street. So that's all underwater, which is really -- it's -- if you didn't know that, now you know.

But it presents a lot of technical challenges for us, because we can't just simply rely upon what's visible in terms of building something. We have to build something underneath the Plaza as well.

We heard a lot of feedback from stakeholders about the impact of the views and the impact of people who are experiencing this as of currently. And so what we've done is we've tried to come up with a design that has minimal impact, actually enhances the area and the circulation of the area, and in particular enhances the accessibility of this area.

This area has, sort of, a legacy design aesthetic that is very blocky and "stairy." I'm not an architect, I'm an engineer, but that's how I would describe it. And what we're trying to do with this project is make it more "rampy" and more gradual so that people who are not walking can have ease of access from all the different areas, including the lower area.

All right. Moving forward, Waterfront Plaza. Again, a lot of focus on circulation, programming use, and the experience of people. And then what that means, a lot of focus on accessibility, a lot of conversations with the regulatory authorities on the impacts to the water. Those are ongoing conversations.

All right. Now let's move to Pumphouse Park. Pumphouse Park is a very technically complex area because we're trying to fit a flood protection system between Pumphouse Park and the edge of the marina, and there's not a whole lot of space there. And we're trying not to create a choke point for pedestrians.

On top of that, there's a lot of infrastructure below this platform that is very critical for the Port Authority and for the PATH tubes. So we're trying to, sort of, navigate all these different choices and so that's why earlier in the presentation I said this is still under development a bit. But we heard a lot about circulation, open space, the preservation of Pumphouse Park.

And currently right now we have the wall, again, going between Pumphouse Park and the

marina. And we're looking to see, you know, what choices we can make to modify that design so that we, you know, we alleviate the current choke point that currently exists with pedestrian flow.

Again, continued conversations about circulation, which is critical. That's why we said this. This area has still technically got a lot going on.

Now, Kowsky Plaza -- so Kowsky Plaza, we come up along the Northside of Kowsky Plaza and, you know, this area was -- we chose to be as efficient as possible, again, with this area and basically follow the current privacy screen wall which exists on this side of Kowsky Plaza so that the new project wouldn't be experienced as a changed condition.

So the alignment follows that privacy screen and comes along the corner onto the Esplanade itself. You can see the existing privacy wall here. And you can see the current proposed flood wall. Again, we're representing it as gray, but I don't think we plan to do that. You know, we're going to talk about materiality and finishes and what that surface look like, and how we can make that vertical surface something that blends into the existing architecture of the Plaza area.

Yes, keep going. So moving forward; North Cove. Again, lots of continued coordination with a lot of different stakeholders; the public, the people who are in the buildings, the regulatory agencies, the Port Authority; there's a lot of technical issues here; the ferry terminal. There's lots going on and, you know, there's a lot of intense conversations taking place with all of those folks in addition to, of course, folks tonight with you to get feedback.

Now let's talk about the South Esplanade. So the South Esplanade is, again, an elevated platform that's suspended above the water that is adjacent to the buildings. The Regatta, Hudson Towers; and those buildings, for the most part, have privacy walls. And what we've chosen to do based upon the feedback that we've heard is to try to align with those privacy walls, again, so that the project doesn't represent a change to the experience of people.

So again, we've heard a lot about, also the trees in this area and what we can do to minimize any impact to those mature trees. And I should mention, of course, and the artwork at the street ends, which is something that's an added complexity in

this particular area with artwork installations like the Upper Room and other types of installations; right?

So here's some before and after that show those project. Again, taking advantage of that privacy wall there, and that alignment that's shown. The project currently has the upper path undulating. But, you know, we're getting some feedback on that. And so, you know, that's something that we'd love to hear from you. So, you know, leave your feedback on that because this is the great moment to do so.

And then the street ends. Moving forward, again, circulation, the street ends, the treatment of artwork; the project team is talking to all the different artists of those different artworks to try to bring them into the conversation about how the Authority's area is evolving with climate change and what that means for their installation and how we can maintain the vision of their installation. And then again, continue coordination with agencies as well -- as well as the people who live in the buildings, of course.

REACH 7; South Cove. REACH 7 is a beloved area within the Authority's property. They're all beloved. But this has unique characteristics. It

was the area designed by Mary Miss, the landscape architect.

It's got a wonderful grove of trees up on the upland area and our intent is to protect those trees. And so we were trying to find a way to, you know, we heard the feedback about tree protection and we're trying to find a way to make the alignment such that it minimizes impact to those trees. And so we're coming basically up and up along here to avoid the impacts here and then come in and tie into the South Project.

Also I want to say that for the occupants of this building, we're exploring, of course, all of the deployable and the half-height concepts on REACH 1. They're going to be brought over here into REACH 7 as well, and we're exploring those as options as well.

And sitewide we heard some feedback as well. You know, overarching themes; the trees, disruption, impacts, cost, views. Materiality; like the essence that makes in part with the current property is so special is because so much thoughtfulness was put into the design and the materiality of the built environment.

And we want to maintain that level of,

sort of, historical design and match that and evolve that. So we're going to have a lot of focus on materiality moving from 30 to 60 percent, because that's the time where we talk about those types of details. And then as I said before, universal accessibility.

Again, more suggestions, consulting with the original park designers, more investigations on the gaps, the deployables, the visual obstructions, the opportunities to maintain line of sight. And issues of heat islands; we've heard a lot about that. We're talking a lot about heat effects and what we can do with our project to mitigate the effects of heat islands during those hot July and August days.

And then, you know, just overall holistically thinking about the ecology and how the ecology could be impacted by this project in a positive way to make it more adaptive to the growing saltwater environment that the Authority's properties are exposed to.

So moving forward, again, we're here. We're at 60 percent design. There's going to be a fair amount of opportunity for feedback; I would say general feedback about design concepts, particularly at Pumphouse Park and REACH 1.

And then we're going to begin to initiate permitting processes that have their own feedback structure that's more formalized for the Corps of Engineers and the DEC Joint Application; that's a permitting process. And for the state SEQR process, there's an entire permitting process that's, you know, statutorily established.

So all those are going to be happening in the next couple of months, and you'll have a lot of opportunity to provide comments on the project in a lot of detail.

And then just as a last point, there's -- you may have seen this already, but we're going to begin to have some ongoing field work as we survey the property, do geotechnical investigations. We do testing of the ecology and of the soils so that as designers we understand exactly what we're dealing with so that when we get done with our design, we know what we're building on. Great.

MS. MADONICK: Thank you, Peter.

Okay. We're going to start with the Q and A, and I'm just going to go over a couple of game rules. If you're participating in-person, I'll have my friend Vince is going to come around with a microphone so you can share your question or comment.

We're asking that you please keep your comments to less than two minutes so that we can get to as many people as we can and hear as many comments as we can. If you don't want to speak into a microphone for whatever reason, just raise your hand and Caroline over there will bring you a card, and I'll be happy to read it for you.

If you're participating virtually today, please use the Q and A feature to enter your questions and your comments. They're being transcribed. I'll be going back and forth, rotating between in-person and online questions and comments.

If we don't get to all of the questions and comments tonight, I'd suggest that you write them down, either put them in the comment box that's out in the exhibit area, or send them via e-mail, or hand them to me. The comments will be responded to in a frequently asked question document that will be uploaded to the BPCA website shortly after tonight's meeting.

And just one little note about courtesy. You may hear comments that you agree with. You may hear comments that you disagree with. Let's just be respectful of everybody who comments today and whatever their opinions are. So with that, Vince?

Look at me, Vince.

GUEST ATTENDEE: Thanks so much. I guess to start out, thank you for having the consideration of not moving the ferry terminal while the construction is going on. I really appreciate that, because that was a big issue. And I hope that that can be accomplished, and whatever we can do to work with you to make that happen.

But I've got a question about where the -- you called the Lily Pond, I call it the pond. I don't understand, just because it went so quickly. You said you're going to preserve it. Would you just go a little more slowly about where the alignment is and where it's going to be? Sorry; all the way back.

MS. RUEDISUELI: Can you flip forward maybe one more or two more slides?

GUEST ATTENDEE: Yeah, that one. Yeah.

MS. RUEDISUELI: Great. So the Irish Hunger Memorial is right here. The existing -- the Lily Pond is right here. So in order to preserve the Lily Pond we will be constructing the flood wall in between the Irish Hunger Memorial Plaza and the Lily Pond.

So this construction will have to close

the Lily Pond, but we will not be -- we will -- it will remain as is. And then the alignment will continue along 300 VC here and to the south, kind of, bisecting the current Esplanade.

MS. MADONICK: This is from online.

How is the wall adaptable? The present photos make it appear that raising it will require demolition and reconstruction. How are these preliminary designs adaptable?

MR. GLUS: That's a good question. I think all communities that are building against climate change are concerned about adaptability because we're projecting what is going to happen in the future and we're building something that has a 50 plus year life.

So what we'll be doing in this project is we'll be taking all the opportunities we have to make the foundations of the elements that we build, you know, where we can, stronger so that if we need to adapt something in the future, we have the structural ability to do so.

Nobody wants to build a wall and then have to amend the wall later on during the course of the project. And when you're constructing something like this, it's fairly inexpensive to make the

foundation a little bit wider, a little bit stronger.

Now we're not going to do that in all stretches, but where we think that opportunity is lying in front of us, we're going to take those opportunities to make this more adaptable. The Rockefeller Park approach is adaptable.

Right now we want to hear the community feedback that we don't want to have construction in the park, we want to go in there with what I want to call, sort of, a surgical project that says we're going to put some drainage there so that we don't have any ponding.

However, 20 years from now, you know, we might not be worried about ponding, but something more significant than that. And so the Authority understands that there has to be an adaptable approach to that Rockefeller area because over time that area will be exposed to climate change and extreme rain and cloud bursts and all the other elements that are going to unfold in our lifetimes.

And so we're looking for an adaptable approach there so that we don't regret putting capital money and building something that we can't adapt in the future.

MS. MADONICK: Thank you. Vince? In

the back.

GUEST ATTENDEE: When you were talking about the wall that will run through Hudson River Park on the highway, you said it was going -- that wall wasn't there to be -- for the streets west in Tribeca. But what's -- is that why you're building the wall; to protect Tribeca? Or are you building that wall to protect Battery Park City?

MR. GLUS: We're building the wall to protect the entire area that's outlined in this map. If this wall that we built here were to fail, the inundation would occur along this whole area impacting the Authority's property, 9A, and the property west of 9A.

And the reason why this area is so critical for us is because this represents one of the lowest points in the Authority's property. And so if that were to fail, the significant amount of flooding that would occur because of the failed wall would inundate this area rather quickly, which is why we're taking particular care -- design something that is robust, meets the design storm, and in particular, meets the coastal conditions and the floating debris conditions that are going to be present right outside that wall in the Hudson River Park area potentially

during a storm.

MS. DAWSON: If I could just add a point of clarification. This area is being built because it's necessary to protect Battery Park City. If we were able to protect Battery Park City, achieve risk reduction for Battery Park City, without extending northward and across Route 9A to Tribeca, we would do that. We cannot do that.

We have to connect to the high point that Peter pointed out at Greenwich and North Moore in order to achieve the level of protection necessary for Battery Park City. That provides the additional benefit of protecting a broader area beyond Battery Park City and in the area that Peter just pointed out. But the primary reason that we are building in that area is that it's necessary for protection of Battery Park City.

MS. MADONICK: Okay. I'm going to ask Jeremy and Greta, could you come sit up here so that we can share out those questions.

From online; based on the design alternatives presented, how do we know how many trees will have to be removed and what percentage of trees will be maintained and replanted? Could we consider adding more trees rather than losing the level we

currently have?

Is that for Greta?

MS. RUEDISUELI: Sure. So we are still working to figure out the exact tree count, but our goal is to minimize the impact to trees. We're also working with an arborist to get an updated tree survey that really allows us to understand the condition and health of trees across all of Battery Park City and identify areas where we can add more trees.

One of the challenges with the wall is that we cannot plant new trees within 15 feet of the wall. So we really want to make the opportunities to add more trees where possible.

Another thing we're looking at is really considering how climate change impacts what kinds of trees we plant, making sure that we're being adaptable to raising heat levels, increased storm, extreme weather events, and increased salinity in general.

MS. MADONICK: Thank you. This question is from the floor, in-person.

Can you talk about the drainage systems that will be needed for the spaces between the river and the retaining walls? Will there be cisterns used as was done in the new playground in the battery?

I don't know who answers that.

MR. GLUS: For this project, the wall is actually, relatively speaking, following the coastline; right? Rockefeller Park might be the one place where there's a big departure between where the water is right now and where our wall is.

So we already talked about our approach to drainage and Rockefeller Park, which is, sort of, a minimalist approach to address the current ponding that's there right now. But for the most part, there's not a lot of distance between the wall and the edge of the water where the Hudson is.

And so besides drainage systems that are necessary to be placed around the particular systems or barriers that we install, we don't plan to have any significant drainage outside of the wall alignment and we will not have any cisterns either.

MS. MADONICK: Vince? Vince? Okay. It's okay.

GUEST ATTENDEE: I just want to clarify that you're going to have the cisterns in Rockefeller Park, because that's going to flood; right? Or, it's --

MR. GLUS: So let me just clarify. We're using the word cistern. So cistern suggests

storage. So what we're -- we're not planning on storing the water.

What we're planning on doing is; and again, we're still designing this so we don't have this finalized; is we're considering whether if we put additional drainage that shunts the collected water out into the Hudson and whether that could minimize the ponding that exists after the rain event occurs. But we don't currently plan to have any storage because that would represent a larger construction project that we do now.

MS. MADONICK: No. Let's just go back to the gentleman right behind you and then we'll come back. I want to give everybody a chance.

GUEST ATTENDEE: To get a sense of the level of disruption to life or usage of the park when different REACHes are being constructed -- let's take the area between Chamber Street and the Lily Pond, the duck pond where you have to extend the wall -- how far down do you need to go to enforce the wall and what type of equipment do you expect to use and what would the exclusion zone be around that work?

MR. GLUS: Right. That's a great question. Along the entire length of this alignment for the most part, we're going to install what we call

a seepage barrier. Because what happens is when surge comes and hits our wall it's actually creating greater water pressure in the groundwater, which has the tendency to basically push through the sand and come up underneath the wall.

And so what we're doing is, we're basically putting a seepage barrier below the center line of the wall to slow down that effect. In some cases that seepage barrier will go to rock. In some cases the seepage barrier will stop above the rock.

We're still in the design process and we're trying to figure out the exact depth of that. But it'll be deep. It'll be 35, 40 feet deep. And again, the goal there is so that when that surge comes, that hydrostatic pressure doesn't come up and undermine the wall.

MS. MADONICK: Can you talk about coordination with the Army Corps' HATS project and potential tie-in of your project of future measures in Hudson River Park?

MR. GLUS: Sure. The design team and the Authority is very familiar with the HATS study. The HATS study affects this area. It affects all of the five boroughs. It affects Nassau County. There's a lot of discussion about the HATS study.

And, you know, I'm going to say that it's important to understand the purpose of what the Corps was trying to undertake. The Corps has HATS-like studies all across the U.S., because what they're trying to ascertain is whether the project is cost beneficial.

There's a lot of vulnerable areas and they all have HATS-type studies. Let's say this community meeting was not here, but in Long Beach out in south Nassau County. It's the same question. Is it cost beneficial to build a wall in Long Beach and protect that community?

And so the Corps is trying to ascertain whether the cost of the project has the benefit and whether the ratio of that meets federal guidelines. So in order to accomplish that exercise, the Corps had to do some design work, they had to have some engagement meetings, and they had to conceive of what a project was because they needed to have their engineers do a cost estimate for it; right?

So I just wanted, you know, the background of the HATS study is not a facility plan for the area along 9A. The background is a harbor-wide tributary study that looks at if I spend whatever the many billions of dollars, is the benefit

there? Does it meet federal requirements? And then of course, the Corps is going to compare those ratios to other parts of the country, like in Florida or in the Mid-Atlantic or in Texas that have similar HATS studies.

So I just want to make sure that we understand the purpose of that was to achieve something that the federal government needed to achieve. This project is a design project. We're planning something. We're designing something that we're going to build and we're seeking very specific community feedback on what it looks like, how it's experienced by people, and how it affects the environment that it's built within.

So I just want to be really clear about the HATS study versus our project. In many ways they're very different purposes. And I can talk at length about this. So you could, you know, grab me after the meeting. But the point, maybe the clearest answer is, yes, we're fully coordinated with the HATS study.

We understand exactly what we're doing. We're coordinating with them in all the different parts of Manhattan and in Nassau County. And we understand what they're trying to protect towards. We

understand the modeling that they've done, how they're representing the storms, and we're coordinated with that.

But we're doing something different here and hopefully that comes through, through this presentation.

MS. MADONICK: Thank you.

GUEST ATTENDEE: Thank you. I have a three-part question. It'll be under two minutes for sure.

You mentioned the walls are adaptable, or the project is. Are they specifically scalable in the sense that the walls going by, let's say, Rockefeller Park by the playground, instead of raising it above, you know, an extra two feet, can they just make it to the same height but due to the thickness of the wall could just be built on if they found that water levels are becoming higher and higher? So instead of just blocking views, you can scale up? That's the first part of the question.

Next, you were talking about drainage of Rockefeller Park. Just want to highlight that in Teardrop Park between the buildings in the middle, I've seen just on rainy days the border get puddling. Are they looking at the drainage there? Because we

can get flooded from obviously from the sky.

And then lastly, the duck pond area -- just for clarity's sake, it wasn't clear to me, I'll just mention it -- the space between the Irish Hunger Memorial and the actual duck pond, is that going to be shortened? Because right now there's a nice open space for kids to play. Is that going to be changed in any way from -- in that drawing, it's hard to tell from the distance from where you enter the Irish Hunger Memorial to, let's say, the -- by the duck pond.

It's a good amount of distance where people hang out and whatnot. Is that going to be impacted?

MR. GLUS: I'll take the first two and I'll pass it off for the third.

So to your first question about foundations. When you build flood protection systems, most of the money is in the foundations; right? Because, you know, you're building a wall, but all the stuff underground is really where the money is; right? Because you have to make sure that wall doesn't tilt when it gets pushed by water.

So you have to have a footing, your footing has to have piles, those piles have to go down

deep, you have to have that seepage wall that goes down as well.

And so a large part of the cost is what takes place below grade. And, like I said before, we're going to look for opportunities in this project where the design of those elements below grade can be expanded in a way that makes cost sense right now so that we can have more adaptability in what's built above ground.

The second question is for Teardrop Park and drainage. That's a great point. The design team will take that back and, you know, we'll see, you know, we'll investigate that further.

You know, we've heard a lot about Rockefeller Park and, sort of, the "swaling." And you could see in the heavy rain day, like, it's like a little pond in the middle there; right? But so we're clearly responding to that. But it's a great point about Teardrop Park. Yeah, yeah. Great point.

And to your third question.

MS. RUEDISUELI: Great question. And I think this is the kind of thing that's really nice to have feedback on at this point in the design phase too.

Obviously in this area we heard a lot

of feedback about the Lilly Pond at the workshop in February. So we really took that into consideration with the design.

There is a substantial Plaza here and we understand that there's a lot of programming that goes on now. And I think it's something we can work with the Authority to find the right balance between planting area -- new planting areas and also the hardscape to, kind of, continue to have that that programmable area.

One thing we also heard a lot of feedback on was the desire to increase planting in this area around the walls. So I think we just want to make sure we find that balance of creating a more berm-like expression that really hides the walls.

I know our team is studying whether or not -- are necessary, for example, and really just trying to strike the right balance there.

Where some of that space came from in order to, sort of, thread the needle here. Currently there, I think, is about a 20-foot-wide path that cuts down to the ferry terminal. We're looking at making that closer to 10 or 12 feet. So I think some of that hardscape is being taken out of the west side, if you will.

MS. MADONICK: How will pedestrian access to the Smith Cove Promenade be affected by this plan both during construction and after? Yeah. Did I say South Cove?

MR. SIEGEL: Yeah. I mean, I would also turn this question over to our builders. But the area that's being impact -- the South Esplanade area, if we could maybe bring it up. Maybe -- more zoomed in version would be good. Yeah, yeah.

But the short answer is that the limit of work extends to the edge of the historic promenade. I'll show you what that looks like in a second.

So basically the flood protection system is the orange line here and then the limit of work, which is basically the area that construction machinery will be operating, and which needs to be reconstructed after construction of the flood wall is finished, is within this boundary.

So the intent right now is to keep this open for as much as possible of the project. The construction team is still working on how that staging will occur, and there are areas up around Gateway Plaza where we will be doing work on the promenade itself. But we do think there's an opportunity here to preserve some public access during construction.

MS. MADONICK: Okay. This is an in-person question that was written.

Is it true that only Battery Park City residents are paying for this project? No federal money is going to this project. Is the authority taking out a bond against the ground rent? Due to principal and interest, it will result in ground rent raises for the residents.

MS. DAWSON: Project is slated to be funded through a bond issue. The revenue generated by receipts from ground rent and pilot payments will be utilized to cover debt service on those bonds.

I will point out that those revenues would otherwise flow to the city. We collect those revenues, take out operating expenses, all of the excess revenues then flow primarily to the city -- to the city general fund.

And therefore there is no upward pressure on any ground rent. The ground rents do not need to be increased in order to cover the costs of the projects.

There has been projections made by our finance department, our CFO, and working with our Bond Council, and is working on the bond issue right now. There will be plenty of revenues to cover -- existing

revenues and future revenues under the existing structure -- to cover the debt service without any increase in ground rents other than what would otherwise happen. So that's not -- there's -- those two things are not related.

MS. MADONICK: Is it possible to put deployables or a wall on Liberty Street and allow Pumphouse Park to flood if a storm comes?

MR. GLUS: Well, I don't want to necessarily comment on that suggestion because the design team isn't contemplating flooding Pumphouse Park. But I will just say, again, that the Pumphouse Park area is something that we're still in the process of looking at a broader array of alternatives because we recognize the constraint between Pumphouse Park and the edge of the North Cove Marina.

So we'll take that suggestion back, but right now within the team, the dialogue isn't to have Pumphouse Park flood. We're looking to see what we can do to make the existing built form work.

MS. MADONICK: Vince? Let's go right here.

GUEST ATTENDEE: Two-part question, but both on a related subject. First, as you pointed in the first REACH out into Tribeca, it looks like the

property that will additionally benefit beyond Battery Park City is worth a couple hundred million dollars. I sense that's the case in the South also, as extends into FiDi.

Is there any discussion about having those property owners or the city on their behalf, -- even though it's not the intent to protect them, you have to do it to protect Battery Park City, -- they will nonetheless be protected. Is there any discussion of having them participate in the cost of this?

And to follow on to Gwen's point, the bond issue is reliant on current income from ground rent plus; I'm sorry, -- PILOT and ground rent plus increases that are already built into those existing agreements. Committing all of that previously uncommitted money will necessarily prejudice your ability to possibly reduce ground rent; is that correct?

MS. DAWSON: No. Not all of that money is necessary to cover the debt service. There still is a very significant amount of excess revenue that would flow to the city. And what was your first point?

GUEST ATTENDEE: [Unintelligible.]

MS. DAWSON: I understand the appeal of, you know, the, kind of, the fairness appeal for folks covering the cost of protection of their property.

The reality though -- the practicality is that this alignment and this area that we're covering in order to achieve the project is essential for the project to happen. And we have taken the position as we've taken, you know, for all portions of the project that Battery Park City Authority will assume the costs of the project and will assume any costs associated with repairing any kind of area that is disrupted during the project construction.

If we did not do that, we would seriously jeopardize our ability to get the project done. We would seriously jeopardize our ability to get it done in accordance with the budgeted cost and at the -- in the timeframe. Because there's also -- there's the cost, and then there's the time frame. And you get holdouts or somebody that wants to negotiate and that doesn't play ball and then all of a sudden we're stuck, and we can't proceed.

So we have made the calculus and the determination that it is in the best interest of the project and Battery Park City to be able to get the

project done as quickly as possible given the risk that exists.

MS. MADONICK: Has there been any consideration given to what climate mitigation, not just adaptation strategies, can be included in this plan?

MR. GLUS: I'm trying to just understand the intent of the question there. You know, the purpose of the project is to protect from a storm.

When we do -- when we think about the storm mathematically, the storm is really two things. It's rain and surge. And so what we've done is, we've designed the project to achieve what we call the joint probability of both a surge event and a heavy rain. Because what we don't want to do is build a project that has a wall but can be flooded like a bathtub.

At the same time, you know, we don't want the inverse to take place as well. So we've looked at 10 or 15 different types of combinations of rain and surge occurring, and we've chosen the worst case, and that's our design case.

So the project has looked at different intensities of rainfall that are beyond what DEP is requiring right now. The industry is trying to define

what we mean by extreme rainfall. But we've looked at more intense rainfalls. The word extreme; I'm not sure I want to use that adjective because I'm assuming that over time there's going to be, sort of, a codified understanding of what extreme rainfall is, you know, a cloud burst. But we've certainly looked at intense rainfall events that occur over 24 hours and the project defends against that.

We've talked about surge and climate change, and the project incorporates that. We've also talked about opportunities within the project to recognize that there are certain places within the project where summertime heat is significant. And maybe the project gives us an opportunity to address that somehow.

We've talked about adaptability of the ecosystem, of the plantings in the Authority's property, as over time, whatever is growing in the Authority's property is going to be subject to an increasing level of salinity because of the effects of climate change.

So all of these things represent adaptive approaches that the project is taking. So I hope that answers the question.

MS. MADONICK: And this is an in-person

question. Jeremy, I think this one may be for you.

In places where the wall can be raised alongside the existing line in south portion, why consider major design changes alongside the existing path, considering how much extra disruption and cost would be required by making design changes versus just putting the wall up?

MR. SIEGEL: Thank you for the question. I think we received a similar one in our last session. I'll go back to the plan that I was looking at before.

So -- excuse me. So the flood protection system is being built up against an existing set of private properties. There's no construction staging that can occur landside of the wall. All of the construction equipment is going to be moving in this area where the existing upper pathway and garden areas are.

So our limit of work, basically the area that will be disrupted by the construction itself, is the area that you see here in green. So we need to put something back.

As we've been looking at what we can put back, we've been looking at ways that we can optimize and -- planting beds that we can -- a lot of

the trees here are actually encumbered in their root zones. So we're looking at ways that we can, sort of, increase the amount of planted area that they have, provide as much shade as possible and create welcoming, sort of, areas at the end of the streets.

So these are all the things that have been going into our thinking as we've been looking at redesigning the area. If there are, sort of, thoughts on how to put the area back, I think we're very open to those.

But I want to be very clear about the cost question because this is an area which will need to be reconstructed in any case.

MS. MADONICK: So from online we have two questions; same person.

Why weren't offshore deployables considered? And, how does this plan account for increased city flooding from rapid heavy rainfall?

MR. GLUS: I'll answer the second question first. So the second question is, yes. The plan does incorporate intense rain events. We just mentioned that we looked at a whole suite of different types of rain events in our joint probability analysis. And so we understand how the project will respond to that. And so the project has incorporated

that.

To the first point about offshore elements. You know, I think there's a place for offshore elements. Arcadis was the designer for the Living Breakwaters project off Staten Island. And the intent of that was to take some of the wave energy and dilute it so that the coast of Staten Island would not receive the energy that would otherwise be there.

But, you know, those are very complex -- from a permitting perspective -- very complex projects. They're cutting edge in a sense. There are other places in the world where offshore measures have been taken.

But fundamentally the design storm has a surge that would inundate wetlands and many of the offshore interventions that engineers have come up with over the past 20, 30 years because we're designing for wave types and wave actions that are like, -- you know, the wave simulations are, you know, kilometers wide.

So, you know, wetlands might slow down a wave that might be at the height of the wetland. But if the wave is 6-7 feet higher than the wetland, it's not going to slow down the energy. It's not going to slow down the wave action.

So for sure, our design team is familiar with in-water interventions. We designed the only one that's in New York Harbor, which is the Living Breakwater Project with SCAPE and with Arcadis.

We've done a lot of these types of interventions in the coast of the Netherlands and other parts of Europe and the world. But they just don't technically meet the criteria that this project is looking to protect. And so we haven't included them as part of our project.

That sets aside, of course, the ability for us to permit such projects, to demonstrate the effectiveness of those projects, and whether the significant costs of those projects would have the benefit.

MS. MADONICK: Thank you, Peter. Gentleman over --

GUEST ATTENDEE: I think this question goes along with what we were just talking about.

There was a wonderful op-ed piece in the New York Times on June 5th, I think it was, 2023, which talked about a program of -- at the mouth of the harbor of New York City having an array of gates to prevent flooding from coming in to all of the whole harbor areas and waterways around New York City.

And that has been done in London, in Rotterdam, and Saint Petersburg, Russia, apparently, and is being under consideration in Miami and Galveston and Houston.

And it seems to me that that region- wide, harbor-wide area encompassing all of the waterways of New York would do away with the necessity of these myriad local projects, which have the potential to ruin the wonderful access to the coasts that we have in New York.

So I just wanted to know if that's being considered as part of this plan and what the status is of exploring that kind of response to the flooding?

MR. GLUS: That's a good question, and it's a good technical debate. When we were talking to the city of Long Beach about the HATS study, we were reminded of the HATS study that was done in 1970 that had the same alignments and had the same proposed barriers around the same area in New York Harbor.

So the problem with such a type of system is that you have to build all of it and then once it's constructed it would protect from surge. This is true. But it wouldn't protect from climate change. It wouldn't have an impact for the extreme

rainfall. It wouldn't have an impact with daily tidal cycles and daily tidal flooding.

And so I think, you know, this really is beyond this project. The city has made a decision that Lower Manhattan is protected by a series of projects that are intervening now because the city believes that that's the best approach.

There's a lot of technical discussion about the harbor-wide approach. Arcadis was the designer for the areas around Jamaica Bay and Coney Island. We gave the Corps our cost estimates. Yes, and we designed those gates in Rotterdam.

And certainly, you know what, I would just suggest maybe this is like a post-meeting conversation because there's a lot of conversation we can have on this. They're valid opinions in both ways.

But at this point today, the city, over the past decade has come up with a policy that says we're going to protect Lower Manhattan sooner in a more real way from a funded perspective with interventions along the shore. And again, I'd be happy to discuss that more after the meeting.

MS. MADONICK: Thank you, Peter.

Trees in south Battery Park City are so

essential. They provide cool conditions during summer. Apartments don't need much air conditioning use, especially along the Esplanade and South Cove. Cutting trees and planting small young ones will eliminate that. How are you planning to address this?

MS. RUEDISUELI: Sure. I think that's a really great question and I think it's a concern. I know we're having conversations with the design team and in our office again and again.

The reality is that when trees come down, we have to plant new trees and they're not going to be as big. I think that's something that everyone needs to be aware of.

We're looking at, as mentioned before, opportunities to, sort of, replant as much as possible, meet and exceed the kind of number of trees that would be removed. But the, -- I mean, there's not really a solution for replanting a mature tree because we're not simply going to go and get 50-year-old, 30-year-old trees and bring them to Battery Park City. I think in some --

MS. MADONICK: -- this while it continues. How do you plan to address tenants' concerns such as this?

MR. GLUS: It's a very good question.

It's a very real question. We've been -- we've started this journey of talking to the residents to discuss that specific issue. For each one of these buildings, what's behind the privacy wall? What's it being used at right now? Like, is it soil? Is it heaving? What type of use?

How we can make choices with our construction equipment to minimize the project, the time the project is in front of their particular unit, is all the things that we're discussing right now because you've recognized by reconstructing those privacy walls, we're going to impact those people who live there for a period of time.

So again, we have a 30 percent design. As we're advancing that and it's becoming more detailed, we're beginning to look in a more detailed way in the equipment that we're using, the phasing that we're doing, the scheduling that we're doing, and these types of issues. How can we go and intervene and change that wall in a way that best optimizes the project for the person who's in those units?

But at the same time, for the entirety of REACH 6, balancing that with the efficiency of getting the project done in a timely manner for all the folks who use that REACH.

So these are great questions and there's no easy answers to that. But, you know, we've begun this dialogue with you folks, and we're going to continue meeting with the residences to talk about what we can do to minimize the impacts.

MS. MADONICK: This is online.

Why can't we move the ferry terminal south and stay south?

MR. GLUS: The quick technical answer is because by moving it south we interfere with intake structures for the cooling for the Brookfield Complex. There's large pipes that draw water in for the cooling system, and by moving the ferry terminal south we basically impact the ability of those intakes to suck in the quality of water necessary that's not going to foul their system up.

So there's lots of other technical reasons. That's one of the main ones.

MS. MADONICK: Okay. Vince? Gentleman in the black shirt.

GUEST ATTENDEE: Hello. First question, is there a budget? And then there's a second part. That's why I'm asking that question. Is there a budget?

MR. SIEGEL: One of the important

aspects of this as the work progresses is to figure out what the price tag is and eventual financing plan. In terms of a budget, we'll see how the costs end up taking shape as we make more decisions about the details of the plan.

As you may be aware, in terms of our bonding capacity, it was recently increased by the legislature by a billion dollars because of this important work that has to happen.

So, you know, we're mindful of our bonding capacity between that and other approvals we've been given. But we want to do it as cost effectively as we can without sacrificing the character of the neighborhood and the urgency of the work.

GUEST ATTENDEE: Doing the study that I've done going out 15 years, we're going to be looking at $10 a square foot. We've already lost the garage because they couldn't afford to pay the PILOT and the city taxes.

So when you have two billion dollars already on the homes' land; right? That's about how much has been borrowed. So if you're going to borrow X amount more money, and now we go to $10 a square foot, a one-bedroom apartment to walk into is going to

be about $3800 a month in charges.

So then we start having empty apartments and we're trying to get the land lease lower, it sounds to me like we're hoping it's not going to be raised.

But bringing up what I just brought in -- brought up, it doesn't seem possible to lower it, and it only seems possible to go up because if you take the bonds as you roll them every three to five years, we're not looking at three percent. We're going to be looking at six, seven, eight percent.

So -- and I did the study that you sent out and it doesn't take into account any of that.

UNKNOWN SPEAKER: Yeah. So I would say first of all, overall in terms of ground rents, that's a whole other public meeting that we have had in the past and also if you're interested in learning more about how ground rent works here and what our view is in terms of addressing concerns around escalations that have caused unanticipated uncertainty and potential extreme spikes in ground rent, please go to our website. If you go to the residential life page and the affordability section, you can see a lot of information on the ground rent framework.

It is connected certainly to this

resiliency work. What I would say is that we'll be mindful as the design takes shape and the budget takes shape coming up with a financial plan that is a responsible one.

And ground rent won't go up or down based on what the resiliency project is going to cost. Ground rent is derived currently from the leases that exist themselves through 2069. And any fiscally responsible alternative we can come up with independent of resiliency costs.

MS. MADONICK: Will construction on the REACHes occur sequentially or in parallel? In which order, if sequentially?

MR. GLUS: Right. Right now our 30 percent design -- and, you know, the benefit of 30 percent design is we can begin to understand the shape of the construction. But we're not there yet.

As you progress towards 60 percent design, we're going to have greater clarity on phasing, sequencing, working in parallel, working in sequence.

I think those details are to come as the design progresses further. And we certainly will be having engagement sessions to talk about that. But we don't have that information right now.

MS. MADONICK: This is from the floor; same person.

Are there any vulnerabilities with the ConEd substation at 7 World Trade Center, as it is on the lower elevation and provides power to Lower Manhattan and was at risk during Sandy?

MR. GLUS: Yeah. I mean, I'm just going to repeat, you know, what Gwen said. I mean, the purpose of this project is to protect the Authority's property and its residences.

We cut across 9A and went up to Greenwich because we wanted to take advantage of the topography that's advantageous to us technically; right? You know, the city built, sort of, a way for us to do that with efficiency. It may or may not protect ConEd infrastructure in the upper road.

We don't -- the purpose of this job is not to do that protection. There'll be some benefit, but I can't answer specifically as to whether this is going to protect ConEd assets or not.

But again, the purpose of the project is to protect the Authority's property and there's some ancillary benefit because we're crossing up into Greenwich.

MS. MADONICK: Thank you. Vince, the

woman in white in the back.

GUEST ATTENDEE: Hi. Thanks. I wanted to understand when you think the construction will start?

And just to clarify, I think you just answered it, but are you saying that you're not sure yet if it's going to happen all at once or if it's going to be in phases, so we'll keep access to the park?

MR. GLUS: Right. I'm trying to move through the schedule slide really quick. I think I'm going the wrong way. Yeah. So at a high level this is what the schedule is in terms of construction.

Right now the construction is visualized to begin in 2025. And between now and then, we go through all the different design milestones, and we obtain our important and very significant federal and state permits, and I mentioned before, the permitting process that's associated with those permits.

Your second question was? Oh, correct. Yeah. Yeah. Again, you know, we're -- what we don't want to do is come to you in a meeting like this and, kind of, speculate on the phasing.

What we're doing as a project team is

presenting the 30 percent which is our way of capturing the feedback that we've received over the past nine months from stakeholders, residents, and agencies. Sort of, validating that 30 percent, getting more feedback on that, and then pushing into different levels, deeper levels, of design.

As we go along that process, the construction phasing, the types of equipment, the staging areas, all that's going to become more clear. And then when we have a clear answer on that, we're going to present that answer.

MS. DAWSON: If I could just clarify. I mean, not that I have a complete answer to the question, but I can certainly safely, I think, say we're not doing all the project at once. I can also, I think, pretty safely say we're not going to do it one REACH at a time. So it'll be some in between there.

And that's what, as Peter said, we'll be formulating a strategy for, and coming back and talking to the community about so that you have an opportunity to understand that more and provide us with your thoughts about that.

MS. MADONICK: So we're back to online. This is a question about the Irish Hunger Memorial.

On REACH 4, why is there not an option to have the alignment go east of the Irish Hunger Memorial? And, please discuss the option of partial deployables in REACHes 3 and 4.

MR. GLUS: I'm going to give you a couple of technical reasons, then I'll pass it off. Yeah, if you want to go to that.

When the suggestion is to go east of the Hunger Memorial, really, it's probably the suggestion to wrap the Hunger Memorial around. And I guess the two technical issues that the design team has recognized is, one of them, there's a significant concentration of telecom utilities around 300 Vesey in that area. That is, sort of, purposeful for the function of that building.

And so that it has a unique concentration of utilities, which would be a significant thing to work around with the alignment around the Hunger Memorial.

The other thing that I would say is that obviously by going around the Hunger Memorial, we're increasing the length of the flood wall by four or five times and creating a significantly greater impact around the Hunger Memorial for the people who are experiencing it from the east side and from the

north side and from the south side.

So there's the two technical reasons, but I'll pass it on.

MS. MADONICK: Okay. The gentleman over there hasn't asked a question yet.

GUEST ATTENDEE: Just going back to the budget question. Just curious how you design and plan a project without a budget? I'm less familiar with that. It seems to me that if this is fully designed and planned, we're going to be budget takers versus setting a budget. So paying for whatever cost it ends up being.

And I guess a follow-up to that would be, like a lot of projects, budgets end up costing a lot more than expected, especially large, complex projects such as this one.

So what happens if it ends up costing two or three times what we planned on it costing? Where's the escape valve? Does that fully fall on the residents? Who's taking that risk? Does the city at some point step in? Do you not complete parts of the project because you've run out of money? How do you guys think about that? How do you plan for these contingencies?

MS. DAWSON: I do think that we've

probably addressed this. I mean, we have established, as we have understood more about the project, as we have established the scope of this project. And we have used the best information available but as we have gone along we have understood more. And as B.J. mentioned, we believe that we are at a point now where we are refining and trying to really articulate what the cost of this project should be.

And we have great confidence that in working with our progressive design build partners and with our own financing plan that we will be in a position to complete this project with certainty as to cost. And we see no reason to expect that there would be any kind of overrun to the magnitude that you're alluding to nor any reason for any state or city entity to step in to somehow complete portions of the project that we were not able to.

So I certainly think that that's not in the cards and we're quite confident in our ability to carry this through.

MR. GLUS: So I'm just going to build on that. So -- go ahead and just build on what you just said.

You know, a great example of the progressive nature is the ferry terminal; right? So,

you know, the Authority, the designer, and the contractor back there, we're working together. So when the community says, you know, I don't want it to go north and there's all kinds of, you know, like, it's almost like a tug of war situation; right? So we're, like, you know what, maybe we can build it and leave it in place.

So designers, we like to think we know everything, and we have all of the stuff understood. But when you have a contractor as your partner during the process, the contractor says, no, no, no; do it this way; that's how I did it in Jersey, that's how I did in Long Island.

And so it really, it was a beautiful, sort of, coming together of opinions and experts; people who really have done the work with their hands. And then people who design this stuff on their desks and the client and us who are listening to feedback from people. And because we're leaving it in place, we're saving a lot of money. Because we don't have to move it and move it back; right?

So this is a great example of progressive design build jobs and the ability to basically save on budget because of the nature of the interaction structurally that's been set up.

MS. DAWSON: We will also be engaging in some significant new engineering exercises as well. So there will be many points along the way that we will be stopping testing, and as Peter pointed out, looking at ways to save money and to create ways of lowering the cost of elements of the project.

MS. MADONICK: So we're going to finish tonight with a question from online.

What are the two biggest risks to the proposed solution functioning to design? What mitigations are being thought of to avoid the risks from being realized?

MR. GLUS: The two biggest risks. I'll give you two; I'm not sure they're the biggest.

The coordination on REACH 2 with Hudson River Park is a significant dialogue that we have to have. Completely separate from that is a dialogue we have to have with DEC and the Corps of Engineers. And anytime you extend a platform over a water body you have to mitigate the effect of that.

And so we're really wrestling with that proposed design, which is what the community wanted, and it expanded Esplanade. And the issues of environmental minimization and avoidance and mitigation.

I think also throughout the project we're doing certain things like we're putting piles in where piles weren't before. And we're displacing the water that the piles are going to displace; right?

And so there's a lot of environmental impacts and we're in a lot of conversations with the Corps of Engineers and the DEC and that's a very complicated conversation we're having right now with them.

That's going to be a very public conversation because it's going to go through the SEQR permitting process and the joint permit application permitting process. And you'll be able to see how we try to avoid and minimize the environmental impacts and how we propose to mitigate them. So I wouldn't call that a risk, but I would say it's a complex process.

MS. DAWSON: And just to add on to that, the risk is probably mostly in terms of time. It's not that we wouldn't be able to come up with a way of doing the project or making the project effective. It's probably the biggest risk is one of time and schedule.

MS. MADONICK: So I started apparently online, so we're going to stop on the in-person.

Vince? This is our last comment for tonight.

GUEST ATTENDEE: Thank you. I was a little surprised that I was being shut down. As the head of the Environmental Protection Committee, thank you for letting me speak for a minute.

I just, -- I know I appreciated the presentation and I recognize your commitment to engaging the community fully. And I know that's very important to you and you're pointing out good examples of where this has worked for you. And there are a lot of sophisticated people in this community that understand these problems intimately. It's not just the designers and the engineers that are a part of your team.

So it's a great -- and can potentially be a great win-win. And with this in mind, I would really thought -- there are things that could be done here going forward in the year where you're approaching 60 percent to engage much more fully, if I may say. One of the things that I know the community has asked for many times are models. And I know that I've spoken to Jeremy that they exist.

It would be helpful to have an ability to see these models in three dimensions. It's difficult for people to fully appreciate each section

and REACH without that. I think that would be greatly helpful; whatever models exist. And more -- or more three-dimensional drawings. I imagine there are models for some of these REACHes.

And two, that each REACH is now reviewed maybe at the community board, maybe at our committee like it used to be at Wagner Park, where people can really dive in and understand what is going on in each one of these areas.

And it's very hard; myself as a professional and an architect, I find it difficult to read these and at a very good pace sit this one through. I appreciate this.

A lot of information that has to be covered and that's why I'm advocating for each REACH, which I think over the course of a few months can happen. And I think those two things would help a great deal.

And then the third thing that I know we talked about, Gwen, which would be great, is to make good on the promise to do some of these walkthroughs in the area with the designers and team. Again, at Wagner Park; that was the wonderful exercise that some of you all showed up, came out, we walked around. Those of us who participated greatly benefited. So

we -- I thought that was happening this spring, but it didn't seem to happen. So is that something that we can?

So those are three asks that I'm hoping that we can get a commitment to. The meetings on the REACHes, each one, the walk through, and some more three-dimensional renderings and models to be seen by the community.

MS. DAWSON: I think we're good on the models; right? I mean it's some, you know, -- I'll let you answer that.

As far as the walkthroughs, I think that absolutely I think that's something that we're -- we've been planning to do. So I see no problem with that. I don't really have an objection to discussions of the REACHes.

The only thing that I would say in qualifying that, is that over a course of a few months, that's not going to be enough time to -- or that's going to be too much time to get from here to 60 percent.

So I want to make sure that we are, kind of, we are aligned in expectations that if the expectation is that those meetings for each of those REACHes occur sometime between now and 60 percent, or

the opportunity to provide feedback for 60 percent, that's probably not going to work.

I'm certainly willing to talk about it. I mean, I know that we're heading into a time where sometimes you're not having, you know, you don't have meetings. So I don't want to go too far in making commitments as far as timeline goes, but let's talk about it and see if there's something that we can do.

UNKNOWN SPEAKER: Do you want to talk about the models?

MR. SIEGEL: Yeah. Thanks for that. We have digital models right now. We don't have physical models at this point, but we can certainly look into what's possible. And yeah, I mean, the further we get along, the more three-dimensional materials really help, you know, allow you to understand things. We understand that.

MS. MADONICK: Okay. I want to thank everyone for participating in tonight's community discussion. For those who are in-person, we still have the exhibits open and the flyover and that will be available until nine o'clock outside the meeting room.

You can certainly continue conversation with the project team. The boards and illustrations

for those who are observing online will be posted to the BPCA website, bpca.ny.gov, within the next few days.

And for those whose comments and questions were not answered, we are going to transpose those into a frequently asked question document, and we'll get that up online as soon as possible.

Thank you so much for being here tonight and thank you for listening to each other. Goodnight.

(Whereupon, the meeting concluded at 8:25 p.m.)

CERTIFICATE OF DEPOSITION OFFICER

I, PAUL GRASSO, the officer before whom the foregoing proceedings were taken, do hereby certify that any witness(es) in the foregoing proceedings, prior to testifying, were duly sworn; that the proceedings were recorded by me and thereafter reduced to typewriting by a qualified transcriptionist; that said digital audio recording of said proceedings are a true and accurate record to the best of my knowledge, skills, and ability; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

PAUL GRASSO

Notary Public in and for the

State of New York

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